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US Army Corps of Engineers

Construction Engineering Research Laboratory

# Layaway Procedures for U.S. Army Facilities, Volume II: Inspection and Maintenance and Repair Checklists

by

D.R.	Uzarski	S,D.	Foltz
R.E.	Rundus	R.W.	Harris
	Bailey	V.F.	Hock
	<b>Binder</b>	C.S.	Marshall
	Brotherson	J.H.	Myers
	Cartwright	J.R.	Myers
	Demetroulis	K.	Piskin
	Drozd	V.I.,	Van Blaricum
	Ellsworth	H.H.	Zaghloul
	Field		•

This two-volume report describes facility layaway procedures for U.S. Army facilities, with an emphasis on Fort Dix. New Jersey.

Volume I focuses on decision criteria and the economics of facility layaway. Decision matrices for choosing cost-effective layaway strategies are presented. The concepts behind differing maintenance and repair (M&R) standards are addressed. Strategies for both short- and long-term layaway periods are described. The influence of the allowed reactivation period on M&R strategies is also described. Deactivation, periodic M&R, and reactivation for buildings and utilities are discussed, as are environmental and security concerns. The report concludes that facility layaway is technically feasible at an affordable cost.

Volume II addresses the specific inspection and M&R items associated with all of the different systems and components for buildings and utilities. These items are presented in a checklist format. A brief explanatory section precedes each checklist.

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CONSTRUCTION ENGINEERING RESEARCH LABORATORY
ATTN: CECER-IMT
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Donald Brotherson is a member of the Small Homes Council - Building Research Council, University of Illinois. John Myers is the Assistant Dean for Research of the Center for Architectural Conservation, College of Architecture, Georgia Institute of Technology. James R. Myers is from JRM Associates, Franklin, OH. Nicholas M. Demetroulis is from NMD & Associates, Alexandria, VA.

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#### CONTENTS

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FOREWORD	
INTRODUCTIO	
LIST OF ABBR	EVIATIONS
METRIC CONV	ERSION TABLE
APPENDIX A:	Key to Using Inspection and Maintenance and Repair (M&R) Checklists
APPENDIX B:	Inspection and M&R Checklists for Roofs
APPENDIX C:	Inspection and M&R Checklists for Exterior Clusure
APPENDIX D:	Inspection and M&R Checklists for Interior Construction
APPENDIX E:	Inspection and M&R Checklists for Interior Electrical Systems
APPENDIX F:	Inspection and M&R Checklists for Plumbing
APPENDIX G:	Inspection and M&R Checklists for Building Heating Systems
APPENDIX H:	Inspection and M&R Checklists for Air-Handler Units (AHUs)
APPENDIX I:	Inspection and M&R Checklists for Refrigeration Systems
APPENDIX J:	Inspection and M&R Checklists for Mess Hall Equipment
APPENDIX K:	Inspection and M&R Checklists for Steam Heating System
APPENDIX L:	Inspection and M&R Checklists for Gas Distribution System
APPENDIX M:	Inspection and M&R Checklists for Petroleum Products Storage System
APPENDIX N:	Inspection and M&R Checklists for Sanitary System—Potable Water System
APPENDIX O:	Inspection and M&R Checklists for Sanitary System—Wastewater System
APPENDIX P:	Inspection and M&R Checklists for Sanitary System—Fire Protection System
APPENDIX Q:	Inspection and M&R Checklists for Electrical Distribution System

### LAYAWAY PROCEDURES FOR U.S. ARMY FACILITIES, VOLUME II: INSPECTION AND MAINTENANCE AND REPAIR CHECKLISTS

#### INTRODUCTION

#### Background

Base closure and realignment<sup>1</sup> is causing significant changes in mission and population at several Army installations. Within the U.S. Army Training and Doctrine Command (TRADOC), several forts are being affected, but the greatest mission change is occurring at Fort Dix, NJ. There, the mission has been changed to primarily support Army Reserves and provide a site for mobilization training capabilities. This new mission is leaving vacant many facilities that have been regularly occupied. TRADOC plans to use these facilities intermittently to accommodate surges of Reserve component training each year. Other facilities must be maintained for occupancy on short notice as mobilization training requirements develop months or years from now. This affects hundreds of thousands of square feet of building space. Existing regulations<sup>2</sup> address some procedures, but do not provide comprehensive guidance for layaway (deactivation, periodic maintenance and repair, and reactivation) of specific buildings or building groups with their related utility networks and grounds for the lowest life-cycle cost in maintaining and operating those facilities. Neither do any other Army documents provide the necessary guidance.

The U.S. Army Construction Engineering Research Laboratory (USACERL) was tasked by TRADOC to develop layaway procedures on a life-cycle cost basis, with an emphasis on the facilities at Fort Dix.

#### Objective

The objective of this study is to develop procedural facility layaway guidelines, based on the lowest life-cycle cost, for individual buildings, building groups, related utility networks or subnetworks, and surrounding grounds.

Volume I describes the decision criteria and economic considerations involved in developing the guidelines. Volume II presents the procedures and checklists for each facility component.

#### Approach

Background information on the problem was gathered, although there was little available. A variety of Fort Dix site-specific facility information was reviewed, site visits were made to Fort Dix, and all available technical literature was studied. This included literature from equipment manufacturers, material suppliers, government agencies, and appropriate trade journals. Organizations known to be involved with facility layaway were contacted and interviewed. These organizations included U.S. Army Materiel

Base Realignments and Closures: Report of the Defense Secretary's Commission (Department of Defense, December 1988).
 Army Regulation (AR) 210-17, Inactivation of Installations (Headquarters, Department of the Army [HQDA], January 1967).

Command (AMC), the U.S. Navy, the National Park Service (NPS), the National Aeronautics and Space Administration (NASA), and others. Finally, studies performed by other Government laboratories were reviewed.

A checktist of procedures was identified for each different type of facility component and material. The approach taken divided the facilities into two distinct groups: buildings and utility systems. Then, each group was further divided into specific components. The intent was to make the component checklists as generic as possible to facilitate use at other installations. However, since the focus of the study was Fort Dix, components and/or materials present at other installations but not subject to layaway at Fort Dix are not included. These checklists incorporate existing state-of-the-art technologies for facility layaway. This project did not include research into new or innovative methods,

A matrix approach was integrated with the checklists. The matrix incorporated the decision variables of length of the layaway period, allowed reactivation time, and three levels of maintenance and repair (M&R) activity. The life-cycle cost analyses were based on those variables. The specific costs used in the analyses pertain to Fort Dix. Geographical and climatic variables, outside of those applicable to Fort Dix, were not considered in developing the checklists.

Facility issues specifically or uniquely applicable to Fort Dix were studied to provide a complete analysis necessary for a proper layaway plan.

#### Scope

This report addresses the procedures for the layaway of U.S. Army facilities. These include tasks associated with deactivation, periodic M&R, and reactivation. The procedures are applicable to the variety of facilities scheduled for layaway at Fort Dix, and to facilities at other locations with similar climate. The procedures are supplemented and supported with cost analyses. Where appropriate, explanations are given on the assumptions used and the methods employed.

Because of the complexity of developing the needed guidelines and the short timeframe specified by TRADOC, this study should be considered a Phase I effort that identifies and consolidates existing technologies into a single package, with main emphasis on Fort Dix.

#### Mode of Technology Transfer

This report has been prepared in two volumes to assist in the technology transfer process. Volume I is intended primarily for installation and Major Army Command (MACOM) managers and budgeteers in developing strategies and deciding "big picture" issues. Volume II is intended for facility inspectors, planners, estimators, and others in identifying specific work items, preparing work orders, and preparing contracts. Some topics in Volume I should also be of interest to those same people.

Since this report is not comprehensive in terms of facility and component types addressed, technology transfer through a Department of the Army Technical Manual or Pamphlet, or through a similar MACOM publication, is not recommended. If and when layaway procedures are developed for additional kinds of facilities and locations representative of the Army as a whole, incorporation into a technical manual or pamphlet would be recommended.

#### **ABBREVIATIONS**

A/E architectural/engineers

ADP automatic data processing

AHU air-handler unit

AMC U.S. Army Materiel Command

ANSI American National Standards Institute

AR Army Regulation

ARMA Asphalt Roofing Manufacturers Association

ASHRAE American Society of Heating, Refrigerating and Air-Conditioning Engineers

BUR built-up roof

CFC phlorofluorocarbon

DEH Directorate of Engineering and Housing

DOD Department of Defense

DTMF dual-tone multifrequency

DX direct expansion

EMCS emergency monitoring and control system

EMS engineered management system

EPA Environmental Protection Agency

EPDM ethylene-propylene-diene monomer

EPRI Electrical Power Research Institute

ETAC U.S. Force Environmental Technical Applications Center

EUAC Equivalent Uniform Annual Cost

Fed Spec Federal Specification
FID field interface device

FRP ilberglass-reinforced plastic

GPM gallons per minute

HISWA Hazardous Solid Waste Amendments

I/I infiltratior/inflow IAQ indoor air quality

IEEE Institute of Electrical and Electronic Engineers

LPI Leak Potential Index

M&R Maintenance and Repair

#### ABBREVIATIONS (Cont'd)

MACOM Major Army Command

Military Specification MIL

MOGAS motor gasoline

MRPM Maintenance Resource Prediction Model

NASA National Aeronatics and Space Administration

NCEL Naval Civil Engineering Laboratory

NEC National Electric Code

National Electrical Manufacturers Association NEMA

NJDEP New Jersey Department of Environmental Protection

NPS National Park Service

NRCA National Roofing Contractors Association

**OSHA** Occupational Safety and Health Administration

PM preventive maintenance

**RCRA** Resource Conservation and Recovery Act

SHDP Steam Heat Distribution Program

TM technical manual TR technical report

TRADOC U.S. Army Training and Doctrine Command

USACERL U.S. Army Construction Engineering Research Laboratory

**USAEHSC** U.S. Army Engineering and Housing Support Center

UST underground storage tank

#### METRIC CONVERSION TABLE

1 in. = 25.4 mm

1 ft = 0.305 m1 psi = 6.89 kPa

1 gal = 3.78 L

= (°C + 17.78)  $\times$  1.8

#### APPENDIX A:

#### KEY TO USING INSPECTION AND MAINTENANCE AND REPAIR (M&R) CHECKLISTS

The purpose of the inspection and M&R checklists is to help inspection and maintenance personnel identify and correct certain defects associated with facility deactivation, periodic M&R, and reactivation.

There are two distinct groups of checklists: one for building systems and the other for utility systems. Both are described below. Also, each checklist consists of two parts: inspection items and applicable M&R actions.

The building systems checklists attempt to be all-inclusive, thereby applying to a variety of building types. To facilitate the inspection process and to group items by logical work type, the checklists address nine distinct components:

- 1. Roofing
- 2. Exterior closure
- 3. Interior construction
- 4. Electrical
- 5. Plumbing
- 6. Heating
- 7. Air-handler units
- 8. Refrigeration systems
- 9. Mess hall equipment.

These components were further divided into subcomponents, consisting of their common building elements. Each building subcomponent (e.g., exterior wall) was individually examined for all its common elements or material types (e.g., brick masonry units). Checklists were then developed for each material type listing all possible corrosive, deteriorating, defective, or unsightly conditions (e.g., cracks and holes). All these conditions are listed for each of the building subcomponents under the appropriate component heading.

The utility systems were classified into four major subgroups: the steam heating system, the gas distribution system, the petroleum products storage system, and the sanitary system. Checklists were developed for each of the utility system components and their various subcomponents (e.g., sanitary system water distribution lines, wells, tanks, etc.).

Within each checklist, standard notations are used to indicate the level of inspection or M&R action, and period of inspection or M&R action. These are:

#### MAINTENANCE STANDARD

PERIOD OF ACTION

Pfr = Preferred

D = Deactivation

Min = Minimal

P = Periodic M&R

R = Reactivation

When a decision to lay away a facility has been made, that facility enters the deactivation phase of the layaway cycle. Tasks to be performed during this phase are intended to place the specific component

into a desired condition or layaway status. Periodic inspection and M&R occur at designated periods of time during the dormant phase of the layaway cycle. Depending on level of action and duration of deactivation period, the designated periods are from 3 months to 1 year. These activities preserve the component at the desired condition or layaway state. The reactivation phase begins when a decision to activate a facility has been made. When a facility is to be reactivated, all its components and subcomponents must be brought into proper working order and the facilities restored to an appropriate condition level.

Columns titled "Pfr" and "Min" are for the Preferred and Minimal maintenance standards, respectively. When a period-of-action notation (D, P, or R) appears in these columns for inspection, it signifies that if the specific distress is present, it should be noted for correction. Specific corrective actions are listed in the M&R portion of the checklists that correspond to the inspection findings. Note that period-of-action notations (D, P, or R) vary for the Preferred and Minimal standards. (Volume I, Chapter 2 of this report includes a detailed definition of each of these terms.)

The additional columns on the checklists are headed by combinations of the deactivation and reactivation periods discussed in Volume 1, Chapter 2. A deactivation period is defined either as a layaway cycle of less than 1 year or greater than 1 year (D<1yr or D>1yr). A reactivation period is defined either as a make-ready time of less than 45 days or greater than 45 days (R<45d or R>45d). The two deactivation periods and the two reactivation periods can be combined into four distinct period-of-action/length-of-time combinations.

On certain checklists, the reactivation period is supplanted by a notation "heat" or "no heat." This notation indicates that whether or not to heat the facility is a governing factor in place of reactivation time, regardless of the length of time allowed for reactivation.

An "X" in any action/time combination column corresponds to applicable D, P, and R notations in the Preferred and Minimal columns. When an "X" appears, an inspection or M&R procedure is to be taken. Dual entries in some of the columns are not typographical errors: they signify different required actions for different action/time combinations.

To use a checklist, the desired period-of-action/length-of-time and desired maintenance standard must be known. Those decisions originate from the decision matrices (discussed in Volume I) and will have been made beforehand by senior management personnel. They determine the appropriate period-of-action/length-of-time column and maintenance standard column to be used.

#### EXAMPLE:

Given: Facilities will be placed in a layaway status for a period exceeding 1 year and more than 45 days will be allowed for reactivation. The Preferred M&R strategy will be pursued.

A portion of the checklist for the exterior wall subcomponent of the exterior closure component for buildings is shown below.

#### EXTERIOR CLOSURE - EXTERIOR WALL

								-
P = Periodic			Min = yr =	Prefer Minimo year days				
		=====	=====	=====	_====	=====	=====	ı
		<u> </u>	<u> </u>	D<1yr	D>1yr	D<1yr	D>1yr	İ
BRICK MAS	SONRY UNITS	Pfr	Min		1	i	1	ı
İ		İ	ĺ	•		R>45d	•	İ
		=====	=====	=====	=====	=====	=====	ı
Inspect for:		   =====	 			  ======		ĺ
10	_	10/0/0	;	[ 	:	;		
Cracks & hole	<b>?</b> S	D/P/R	l	í	ļ	l	, .	ı
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As can be seen in the heading of the left-hand column, this portion of the checklist applies to all buildings with brick exterior walls. When inspecting brick buildings in a layaway scenario of more than 1 year with an allowed reactivation time of more than 45 days, this checklist should be used.

To know what to inspect for, the user must go to the D>1yr and R>45d column. Any "X" appearing indicates a potential action. Where an "X" is found, the user should move over to the "Pfr" column and note if a D, P, or R is present. These letters indicate that actions are required at Deactivation, Periodically, and/or at Reactivation. Some actions may be needed at only one phase whereas others may be needed at multiple phases.

This example shows that a potential distress of cracks and holes may occur, and that exterior brick walls should be inspected for those distresses during the deactivation, periodic M&R, and reactivation phases of the entire layaway cycle.

The checklist is used in a similar fashion for identifying required M&R actions.

#### APPENDIX B:

#### INSPECTION AND M&R CHECKLISTS FOR ROOFS

#### Inspection and M&R Procedures

Visual inspection is an excellent method of finding roofing problems that can be repaired before major damage occurs. This is true for both actively used and deactivated buildings. The inspection procedure described in USACERL TR M-90/04, ROOFER: An Engineered Management System (EMS) for Bituminous Built-Up Roofs, should be used in conjunction with the provided checklists. USACERL TR M-87/13, Vol II, includes more detailed descriptions and color photographs to aid in identifying BUR distresses. Similarly, a planned USACERL distress manual for single-ply roofing systems contains descriptions for identifying single-ply distresses.

It is not possible to find all potential sources of leaks during a visual inspection. This is especially true when the roof membrane is hidden by a layer of ballast. For an occupied building, roof leaks would be reported before substantial damage was done to the interior of the building. For deactivated buildings, interior inspections must be performed to find leaks and stop them in order to limit damage. Leakage activity should be documented and repairs performed. These areas should be periodically rechecked for continuing leakage. Documentation of the previous damage is critical for determining if new activity has occurred. The appendix contains guidance on how to determine where roof leaks originate.

The checklists provide general repair procedures for each of the distresses. This information can be supplemented with the *Manual of Roof Maintenance and Roof Repair* published by the National Roofing Contractors Association (NRCA) and Asphalt Roofing Manufacturers Association (ARMA)<sup>3</sup> and USACERL TR M-89/04, *Handbook for Repairing Nonconventional Roofing Systems*.

#### General Notes Regarding Roofing

Visual BUR inspections should be performed in accordance with USACERL TR M-87/13, Vol II. Visual inspections for ethylene-propylene-diene monomer (EPDM) single-ply roofs should be performed in accordance with the previously mentioned USACERL draft distress manual for single-ply roofing systems. As part of all visual inspections, debris should be removed from the rooftop and all drains and scuppers should be cleared.

The deactivation inspection should include a nondestructive roof moisture survey in accordance with USACERL TR M-90/04, using the aerial infrared technique. Assistance can be provided by the U.S. Army Engineering and Housing Support Center (USAEHSC).

Only high-severity distresses are recorded during the visual inspections, except for the "Preferred - Deactivation" case, in which both medium- and high-severity distresses are recorded.

Manual of Roof Maintenance and Roof Repair (National Roofing Contractors Association [NRCA] and Asphalt Roofing Manufacturers Association [ARMA], January 1981).

Temporary repairs of all recorded high severity distresses should be made immediately to alleviate immediate water entry problems until permanent repairs can be made. Permanent repair of all recorded distresses should be accomplished as well as replacement of all wet insulation and overlying membrane except for during periodic inspection (Minimal option), in which only temporary repairs are performed.

The periodic visual inspection of the roof should be accomplished on an annual basis, preferably in the spring.

Interior inspections for roof leakage activity should be done in conjunction with interior construction inspections.

#### Checklist Contents

The roofing system consists of all parts of the roof except for the roof deck, parapets, and gutters. The subcomponents are the waterproofing membrane, insulation, vapor retarder, fasteners, ballast, curbing, and flashing. There are three checklists for the dominant roofing types at Fort Dix: single-ply, built-up, and shingled roofing. The lists below are the distresses identified on each of the three checklists. The two-letter abbreviations below for single-ply and built-up roofing; and the four-digit distress codes for each checklist item, are part of the ROOFER engineered management system documented in USACERL TR M-90/04.

#### Single-Ply Roofing

Base Flashing Membrane Material (BM) Base Flushing Coated Metal (BC) Metal Cap Flashing (MC) Embedded Edge Metal (EM) Flashed Penetrations (FP) Pitch Pans (PP) Interior Drains and Roof Level Scuppers (DR) Blisters (BL) Ridges, Wrinkles, and Folds (RG) Splits (SP) Holes, Cuts, and Abrasions (HL) Defective Seams (DS) Surface Coating Deterioration (SC) System Securement Deficiencies (SS) Membrane Support (MS) Patching (PA) Debris and Vegetation (DV) Improper Equipment Supports (EQ) Ponding (PD) Wet insulation (IN)

#### Bullt-Up Roofing

Base Flashing (BF)
Metal Cap Flashing (MC)

Embedded Edge Metal (EM)
Flashed Penetrations (FP)
Pitch Pans (PP)
Interior Drains and Roof Level Scuppers (DR)
Blisters (BL)
Ridges (RG)
Splits (SP)
Holes (HL)
Surface Deterioration (SC)
Slippage (SL)
Patching (PA)
Debris and Vegetation (DV)
Improper Equipment Supports (EQ)
Ponding (PD)
Wet insulation (IN)

#### Shingled Roofing

Step Flashing
Metal Cap Flashing
Flashed Penetrations
Valley Flashing
Caulking
Clawing
Improper Nailing/Nail Rejection
Breakage/Damage
Blistering
Loose Tabs
Ice Dams
Debris and Vegetation
Improper Equipment Supports

#### SINGLE-PLY EPDM - MAINTENANCE AND REPAIR

NOTE:

D = Deactivation

Pfr = Preferred

P = Periodic

Min = Minimal

R = Reactivation

yr = year d = davs

		d ≃ day	, -		
Pfr					
2 200 300 300 304 505	 	R<45d	R<45d	R>45d	R>45d
				   =====	====
		i X	i X	i X	X
 	D/P/R	   X	X 	   X	X 
	:	) X	X	X	X
	D/P/R		X	х	X
	:	     X	X	     X	X
1	1		x	X	х
	:		X	   	X
	•		X	X	X
		   X 	   X 	X	X
D			   X 	X	X
ID		X   X	Х	х	X
D		X	X	X	x
	Pfr D/P/R D/P/R D/P/R D/P/R D/P/R D/P/R D/P/R D/P/R	Pfr   Min	D<1yr   Pfr   Min   R<45d   R<45d   Min   R<45d   Min   R<45d   Min   R<45d   Min   R<45d   Min   R<45d   Min   R<45d   Min   R<45d   Min   R<45d   Min   R   R   R   R   R   R   R   R   R	D<1yr   D>1yr   Pfr   Min   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d   R<45d	D<1yr   D>1yr   D<1yr   Pfr   Min   R<45d   R<45d   R>45d
1	1	1	l		
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BMM5 - Side lap is  unattached or fishmouthed  through more than half of  the lap width but not  allowing water to penetrate  through the entire lap  width.	D		X	x	x
BMM6 - Loose or missing termination bar where no counterflashing is used.	D 		X 	X	X
BMM7 - Loose or missing   nailing strip.	D	<del></del>   	X	X	х
M&R activities as required:			   4====		
BMH1 - Repair base flashing  by covering localized de-  fects with new flashing  material.	D/P/R D R		×	X   X	X X
BMH2 - Install extension of  counterflashing over top  termination of base  flashing.		•	x   x	x	x
BMH3 - Repair open side lap  with patches of new  flashing material.	ID R	:	X   X   X	x	x x
			x	X   X	x
BMM1 - Reattach affected  flashing. Provide top ter-  mination to reduce slippage  and provide nailing strip  to reduce bridging. Cut  flashing membrane in  tension and add additional  material as needed.	D		X	X	х
BMM2 - Cover affected   material with new flashing   material.	D		X	X	X (
'	'		ı	1	

	I					
BMM3 - Remove contaminates  from base flashing.	D 		X 	X	х	X
BMM4 - Remove dissimilar  materials, clean affected  area, and repair with new  flashing material.	D   D 		X   	Х	Х	x
BMM5 - Cover side lap with  new flashing material.	D		X	Х	X	X
BMM6 - Reattach or install  new termination bar.	<b></b>   D 		X	X	X 	   X   
BMM7 - Cut membrane and re-  attach or install new nail-  ing strip. Cover nailing  strip with new flashing  material.			   X     	X		
BASE FLASHING, COATED METAL	   	     			 	 
Inspect for:   BCH1 - Holes in metal base   flashing.	  =====  D/P/R  D R	  ===== 	i X	X	=====     =====     X   X	*====   
BCH2 - Holes in membrane  joint cover or unbonding of  membrane joint cover to  metal base flashing  allowing water to channel  through.	ĺ	•	X   X   X	X	X	X     X     D
BCH3 - Exposed gaps at top  termination of the base  flashing.	ID R		X   X	x	X   X	X     X     X
	!		~			

	1		1	1	1	1 I
BCM1 - Membrane joint cover  has become unbonded to  metal base flashing but  does not allow water to  channel through.	D 		X     	X     	X   	X
BCM2 - Metal base flashing   fasteners are loose.	D I	! 	x !	}	x	X
BCM3 - Metal base flashing   has pulled away from the   wall or curb but top   termination is water tigot.	D	NAT BALL TO THE COL	X	X   X 	X     X	X
M&R activities as required:						
BCH1 - Cover holes with	D/P/R  D. R 	i	i   -x	X   X	X 	X
		•	X   X   X	X   X   X	X   X   X	Υ.X
	•	•	X   X	X   X   X	X   X   X	X     X     X
BCM1 - Reattach joint cover   or cover with new membrane   material.	D		X	X   	X 	X     X   
BCM2 - Resecure or replace  missing fasteners.	I D		X 	X   X	X   X	   X   
BCM3 - Cut roof membrane near base flashing and install additional membrane material to reduce tension.	į		X	X   X	X	X
•				. '		. 1

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METAL CAP FLASHING	! [ ]	   			1   	 
number was never newer neutron number   Inspect for:	į	İ	ĺ	j	İ	i i
MCH1 - Metal coping cap or  counterflashing is missing  or displaced from its  original position.	D/P/R	į	i I <b>X</b>	×	X X	X
MCH2 - Corrosion holes have   occurred through the metal   on a Porizontal surface.	D R		X X	x	X   X	X     X
MCH3 - Metal coping cap has  missing joint covers where  covers were originally  installed.	ID R		X X	×	x X	X     X
MCM1 - Corrosion holes have  occurred through the metal  on a vertical surface.	D		X	X 	X   	X
MCM2 - Metal coping cap has  loose fasteners, failure of  soldered or sealed joints,  open joints, or loss of  attachment.	D 		X	X	X   	X
MCM3 - Sealant at reglet or  top of counterflashing is  missing or no longer  functional, allowing water  to channel behind  counterflashing.	D		X	X	X   	X
MCM4 - Counterflashing is  loose at the top allowing  water to channel behind it.	D		X	X	X 	X
MCM5 - Metal cap flashing  does not extend over top of  base flashing.	D		X (	X	X	X
MCM6 - Metal cap flashing has rough edges which are in contact with base flashing.	D		X	X	X	X
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M&R activities as required:				新年品刊記		
MCH1 - Reinstall displaced   metal cap flashing or	D/P/R D R		X	<b>X</b>	X	X
replace with new material.	 	D F  D 	X   X	X   	   X 	X           
flashing with new corrosion	D/P/R	l	X	X	×	X
resistant material.		D F	X X	X	   X 	X   
MCH3 - Replace missing	D/P/R		x	×	i X	<b> </b>
coping cap.	•	ID F ID	X	X 	   X	X
MCM1 - Clean and patch  holes in metal cap flashing  and coat entire surface  with corrosion resistant  paint.		         	X	X     X	X	X       X     
MCM2 - Reseal failed joints  in metal coping cap and  reattach.	D   		X	X   	X	x
MCM3 - Remove faulty seal- ant at reglet or top of counterflashing and reseal.	   D 		×	X   	X 	X
MCM4 - Reinstall displaced counterflashing into its original position and fasten.	D		X	X   	X   	X
MCM5 - Add extension or re-  place counterflashing to  cover top of base flashing.	Ì		X	X	X	X
MCM6 - Smooth rough edge,  bend away from base flash-  ing, or replace metal cap  flashing if necessary.	D   D	Next 2002 1202 feet at		X   X 	X	X

בער ביצור בי	Next copy state data under			****	=====	******
EMBEDDED EDGE METAL	   	   	 	   	   	
   marasmanasamanasmanamanamanamanamanamanaman	j			   <b>           </b>	*********	=====
EMH1 - Stripping material	=====  D/P/R	•		<b>X</b>	<b>******</b>	=====    X
has holes, cuts or tears.   	ID R	  D/P/R  D	X     X	   X	X     X	   X
EMH2 - Edge of stripping	  D/P/R			X		   X
material is open and allows water to penetrate through.		D/P/R		   <b>X</b>	i x	x
		D 	X 	· 	X 	 
EMH3 - Splits in stripping    material above joints.	D/P/R  D R	Ì	   X	X 	   X	) X   
	 	D/P/R	   X	X 	   X	X
EMH4 - Holes have occurred			<b></b>	X		X
through the metal. 	ID R	D/P/R	•	   X	X 	X
Less tide that they have deep does not labe two two tide tide two two date the two tode time that the that the		ID 	X 		X 	
metal with deterioration of	D/P/R  D R	i	   X	) <b>X</b> 	!   X	X   
the stripping material.	 	D/P/R  D	X	) X	   X	X   
	D/P/R	:		X		X
interior gutter.	DR 	I  D/P/R	-	X	∤ X 	   X
 		D 	X 	 	X 	 
EMM1 - Stripping material is crazing, checked or cracked.	D .   	<u> </u> 	X	X 	X   	i x i
EMM2 - Edge of stripping material is open but does not allow water to penetrate through.	   D 	Samb Good School Raga disks	X	X	X	   X   
EMM3 - Nails under stripping material are backing out.	D		X	X	X	X

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EMM4 - Corrosion of the  metal or delamination of  coating.	D   		X     X	X	X	X	
EMM5 - Loose or lifted  metal without deterioration  of the stripping material.	D   		X 	X   	X   	X   	
EMM6 - Hardened joint   stripping material.	D   	! 	<b>X</b>	X	; X   	<b>x</b>	   
	=====	= = = = = 	= = = = =		   ===== 		i I
EMH1 - Cover affected area	====		=====	=====   X	==== 	===== X	
with new stripping  material.	ID R	l D R	X	   X	X 	X	 
pure lang days drow you, shall disk bays from this spell field that their land with their man shall call you with		D	X	   <b></b>	X 		 
EMH2 - Cover affected area   with new stripping	D/P/R  D R	:	i x	X	X	X	İ
material.	Ì !	ID R	×	X	X	X	
EMH3 - Cover affected area	-	:		X		X	]   
with new stripping  material.	IDR I	ID R	•	X	X 	x	
			X 		X 		
(10') of edge metal having	D/P/R D R	İ	X	X 	l ! X	X 	
holes and replace edge  metal and stripping  material.	 	IDR ID I	   X 	X   	i x	X   	
EMH5 - Refasten loose edge	: .					X	] 
metal into solid support.  Replace stripping material.	D R	D R	•	X	X     ,	<b>X</b>	
 	 	D 	X 		X 		
EMH6 - Clean interior	D/P/R  D R	1	l X	X 	   X	X 	
metal. Line gutter with new  membrane material.	! 	DR  D	   X	Х	   X	X 	
EMM1 - Cover affected  material with new stripping  material.	   D   		   X	X	X	X	
			ı				ı

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EMM2 - Reseal stripping  material or cover affected  area with new stripping  material.	D		X   	X   X 	X   X	X
EMM3 - Remove loose nails  in embedded edge metal and  renail into solid support.  Cover affected area with  new stripping material.	D 		X       	x     	X     	X   
EMM4 - Remove surface  corrosion, prime and coat  edge metal with corrosion  resistant paint. Repair  coated metal by covering  with membrane material.	D		X   X 		X   	X
EMM5 - Re-nail loose edge  metal flange into solid  support. Cover flange with  new stripping material.	D		X   	X   	X	X     X
EMM6 - Cover hardened joint  stripping material with new  stripping material.	.		X   X 	X   X 	X   	X   
   FLASHED PENETRATIONS 	   	] ]	   	   	   	]   
= = = = = = = = = = = = = = = = = = =	i	į		j		i
	D/P/R D R	į	i I X	X   X   X		X     X
FPH2 - Flashing sleeve or edge of stripping material is open and allows water to penetrate through.	D/P/R  D R	:	   X   X	x	x x	x
FPH3 - Holes, cuts, or tears in flashing sleeve or metal curb.		:	х     х	x   x	x   x	X   X
hip, and man was now upon graph from 1998. Here then added doubt days upon 194 \$ \$6000 bills again from pool gaps upon stars. Here						

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,	D/P/R  D R	:	X   X	X	x	X   X
FPH5 - Incompatible  flashing material has been  used.			X   X   X	X	x X	X
FPM1 - Stripping material  is crazing, checked or  cracked.	D 		X	X	X	X   
FPM2 - Flashing sleeve or  edge of stripping material  is open but does not allow  water to penetrate through.	D     		X     	X   	X   	X   
FPM3 - Top of flashing  sleeve is not sealed or  rolled inside existing  plumbing vent stack.  Clamping band is loose or  missing (where required).	D		X   	X     	X       	X
FPM4 - The sleeve or  umbrella is open or no  umbrella is present (where  required).	D		X   	X   	X   	X   X 
FPM5 - Corrosion of metal  or delamination of coating.	į	        -====	X   X 	X   X  -====	X    -====	X
M&R activities as required:		 		 		 
FPH1 - Cover affected area		İ	   <b>X</b>	X   X   X	=====     X   X	=====   X   X   X
	ID R		     X   X	X   X   X	X   X   X	   X     X     X
		1	ı	<b></b>		ı

	l ——	l		1	l	l
FPH3 - Remove damaged flashing sleeve or curb and replace.	1	į i	X	x x	   X   X	X     X
FPH4 - Install missing flashing sleeves on flashed penetrations.	D/P/R  D R		X	X X	X   X	X     X
	D/P/R  D R 	į .	X	X   X	X   X	X   X   X
FPM1 - Cover affected area with new stripping material	D   	     	X	X	X   	X 
FPM2 - Reseal stripping material or cover affected area with new stripping material.		       	X	X   	X   	X   
FPM3 - Seal top of flashing sleeve around flashed penetration. Tighten clamping band or reinstall where missing.	i 		X	X   X	X   X 	X   X 
FPM4 - Install an umbrella or weather hood on flashed penetrations.	D 		X	X   X	X   	X .   X .
FPM5 - Remove surface corrosion, prime and coat metal flashing with corrosion resistant paint. Repair coated metal by covering with membrane material.	D		X	X     	X   X 	   X       

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PITCH PANS			 	   	   	! !
Inspect for:	ĺ	i	İ		  ===== 	İ
PPH1 - Stripping material has holes, cuts or tears.	D/P/R D R	į	=====     X	=====   X   X	=====     X	X   X   X
	 	D	X 	, A   	X	
PPH2 - Edge of stripping material is open and allows water to penetrate through.		•	X	x	x	x     x
water to penetrate enrough.		D	X		X	
PPH3 - Sealing material is below metal rim.	D/P/R		l X	х	X	X
		D/P/R	X	Х	х	X
PPH4 - Sealing material has cracked or separated from	D/P/R	:	     X	X	X	X
pan or penetration.		D/P/R	X	Х	X	х
PPH5 - Corrosion through the metal pan.	D/P/R		)   X	X		X
<u>,                                    </u>		D/P/R		x	x	x
PPM1 - Stripping material is crazing, checked or cracked.	D   		X	X	X	X
PPM2 - Edge of stripping material is open but does not allow water to penetrate through.	D   		X	X	X   	X   X
PPM3 - Membrane has separated from metal pan.	<b> </b>   D 		X	X	X	X
PPM4 - Corrosion of metal or delamination of coating.	<del>  </del>   D 	   	Х	Х	X	X
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PPM5 - For EPDM and   Hypalon, stripping material   is not covering and tucked   into pitch pan.	 		X     	X	X	X               
M&R activities as required:	İ		,   			
PPH1 - Cover affected area  with new stripping material  or replace pitch pan fill  and stripping material if  necessary.	D/P/R	į	X	X   X   X	X   X   X	
PPH2 - Reseal stripping  material or cover affected  area with new stripping  material.	D/P/R  D R	:	 	×	   x   x	x     x
PPH3 - Fill pitch pans with   sealant and crown to assure   water runoff.	D R		   X   X	×	X   X   X	
PPH4 - Fill distressed   pitch pans with sealant and   crown to assure water   runoff.	ļ i	:	X   X   X	X	x x	   X
	:		   X     X	x	x	X
PPM1 - Cover affected area  with new stripping material  or replace pitch pan fill  and stripping material if  necessary.	D	<b></b>	X     X   	X	X	X
PPM2 - Cover affected area  with new stripping  material.	D		X	X	X	X
PPM3 - Cover affected area with new membrane material or replace pitch pan fill and stripping material if necessary.	D		X	x	X	X

PPM4 - Remove all cor-  rosion, prime and coat cor-  roded pitch pans with  corrosion resistant paint  or replace damaged pitch  pans.	D       		X	X	X	X
PPM5 - Remove pitch pan  sealant and cover pitch pan  with new stripping material  which extends into pitch  pan. Fill pitch pans with  sealant and crown to  assure water runoff.		           	X   	X	x	X
INTERIOR DRAINS AND ROOF LEVEL SCUPPERS						
Inspect for:	=====					
DRH1 - Stripping material	=====  D/P/R	•	医乳医液素	X		X
(PIB) has holes, cuts or tears.	ID R	  D/P/R:	Х	X	Х	X
	 	D	X		X	
	D/P/R	-		Х		X
material is open and allows  water to penetrate through.		D/P/R	•	X	X	x
with the total man the pair that the total total country and total		  מ	X 		X 	 
DRH3 - Clamping ring is  loose or missing from drain	D/P/R	•	   X	X	X	X
bowl or bolts are missing.		D/P/R		х		x
		D 	X 		X 	
DRH4 - Drain is clogged.	ID/P/R ID R	-	l I X	X	l I X	X
	:	D/P/R	i X	X	j	x
					X 	
	D/P/R  D R	•	   X	<b>X</b>	   X	X
occurred through the metal.	į	D/P/R	X	X	X	x
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DRH6 - Holes, cuts or  abrasions through the  membrane within 2 feet of  the drain.	D/P/R D R		X   X	X   X	X   X	x x	
DRM1 - Stripping material  (PIB) is crazing, checked  or cracked.	D		X   	X   	X	X 	     
DRM2 - Edge of stripping  material is open but does  not allow water to  penetrate through.	D		X	X   	X	X	
DRM3 - Strainer is broken  or missing.	D   		X 	X	X	X   	1
DRM4 - Scupper shows loss  of protective coating or  start of metal corrosion.	<b></b>		X   	X   X	   X 	   X 	
DRM5 - Drain has a field  seam in clamping ring.	D   	     	X   	X   	X   X	X   X	1
M&R activities as required:	j ·	j	j	i		=====     =====	İ
DRH1 - Cover affected area  with new stripping  material.		į	X	X   X   X	X   X   X	X   X   X	1
DRH2 - Cover affected area  with new stripping  material.	D R	:	X	   X   X	   X   X	   X   X	
	D/P/R   D R   I	•	X   X   X	X   X   X	X   X   X	x	
DRH4 - Remove foreign material clogging roof drains.	D/P/R D R		   X   X	X     X	x	x x	

		1		i		
DRH5 - Install new scuppers  in place of broken or  cracked scuppers.	D/P/R D R		X X	X X	X   X	X     X
DRH6 - Cover affected area  with patches of new  membrane material.	D/P/R  D R	1	x	X   X   X	   X   X	   X     X
DRM1 - Cover affected area  with new stripping  material.	D		X	X   	X   X	X
DRM2 - Reseal stripping  material or cover affected  area with new stripping  material.	D   D 		X	X   	X   	X     X   
DRM3 - Install new drain  strainers where broken or  missing.	D		X	X	X   	X
DRM4 - Remove all loose paint and corrosion around distressed scupper, prime and coat with corrosion resistant paint.	D   I   I	         	X   	X     	X   X 	X     X   
DRM5 - Remove clamping ring   and cut out membrane in   ring. Attach new membrane   material (2ftx2ft), with   center hole for drain,   under existing membrane and   attach. Replace clamping   ring on new material.	     		X	X	X	X
  SPLITS 	 	 	     		]   	
MERCETER CHEERS ENDING NEED CHEES	j	====				
SPH1 - All splits are	D/P/R		   X	X	====     X     X	=====     X
就还是通常体验和特殊的现在分词使用的现在分词	****		=====	=====		

i			·	l		
M&R activities as required:	•	<b></b>	22 2 2 2 2 2 1 	  ===================================		
PRESENTATION OF TEACHTECT.		 			   =====	
	D/P/R		i İ	х	i	i x i
•	ID R		i x		Х	
Imaterial.	:	D R	İ	Х	i	X
	İ	j D	X		X	İ
	=====	=====	=====			====
HOLES, CUTS, AND ABRASIONS	! !	 	 	 	<b>∤</b> <b>!</b>	
			<b> </b>	j 		
		arus tot word			****	***
Inspect for:   wearnessessessessessessessessessessessessess	 		) !		 	 
HLH1 - Holes, cuts, gouges			<del></del>	X		X
	ID R		i x		X	
penetrate through the		D/P/R	•	x	) ^ 	l x
membrane.	•	ID	i x	<b></b>	i x	
HLH2 - Holes through the	D/P/R	i	΄	X :	j	x
	D R	Ì	ÌΧ	į	X	i i
lying mechanical fasteners.	Ì	D/P/R		X		X
	1	D	X		l X	
HLM1 - Scratches, gouges or		!	X	X	X	X
abrasions with loss of more	!	!	 1		 	
than hair or the membrane thickness but not fully	1	[  -	<b>!</b> !		ļ 1	1 i
penetrating the membrane.	} 	ł 1	l İ	l 1	) i	l ; l !
Bear and and the membrane.	  =====	  -====	!  =====	  ======	  =====	  =====
M&R activities as required:		! !	]		 	]   ]
	•		-		=====	=====
HLH1 - Cover holes, cuts,	D/P/R	j	i	Х	j	i x i
and abrasions with patches	D R	İ	İΧ		İΧ	į į
of new membrane material.	1	D R		X		! X
		D	X		X	<b>!</b>
HLH2 - Resecure or replace		•		X		X
	D R	-	l X		ļ X	l .
with patch of new membrane material.	!	ID R	I I X	X	   <b>V</b>	X
HIGUULLGL	 		^ 	   <b></b>	X	 
HLM1 - Cover affected area	i D	· == = <del>=</del> 	X	X	,	
with patch of new membrane		, 	, ,	, A	, <u>^</u>	, A. (
material.	ĺ		İ		' 	·
		=====		=====		

					****	****
DEFECTIVE SEAMS	!   	!   	   	   	   	 
Inspect for:				****	#2#2 	
DSH1 - Seam is unattached   through entire width allow-   ing water to penetrate the   membrane.	D/P/R D R	į	i X	=====   X     X	=====     X     X	
DSH2 - Fishmouths, wrin-  kling, or bunching at the  seam allowing water to  penetrate the membrane.	•		X   X	X   X	X   X	X
DSM1 - Seam is unattached   through more than 1/2 inch   of width but not allowing   water to penetrate the   membrane.	D   I   I		X	X     	X	X
DSM2 - Pinch wrinkle at the	D I		X   X	X   X	X   X	X
M&R activities as required:						
DSH1 - Re-adhere unattached  seam or cover seams by  applying patch of new mem-  brane material.	ID R		×	X   X   X		
DSH2 - Cover seam irreg-  ularities by applying patch  of new membrane material.		•	×	   X   X	   X   X	   X   X
DSM1 - Re-adhere unattached  seam or cover affected  area with patch of new  membrane material.	D		X	   X 	————   X   	X
DSM2 - Cover pinch wrinkle with patch of new membrane material.	D		X   X	X	X   X	X
	,	~~~			<del></del>	

SURFACE COATING   DETERIORATION				建筑 成 計位	<b>                                    </b>	
Inspect for:   Inspect for:   SCM1 - Area has lost   coating protection.	İ				=====     =====   X 	
M&R activities as required:   SCM1 - Clean and recoat   affected area.	į	i	   =====     =====   X 	X   =====	  =====    ======   X 	   =====     x
SYSTEM SECUREMENT DEFICIENCIES	   125555   	             	   =====     	2222	   =====   	  -====   
Inspect for:   SSH1 - For adhered systems,   areas of unattached   membrane or substrate   greater than 100 sq. ft.   (25 sq. ft. at building   perimeter).	 	İ	x	zzez X X	=====     =====   X   X	= = = = =   
SSH2 - For mechanically  fastened systems, adjacent  fasteners having missing or  loose components or loss of  attachment.		•	X	x	X   X   X	   X
1			X     X     X	x	x	   X     X
SSM1 - For fully adhered systems, areas of more than 4 sq. ft. but less than 100 sq. ft. (25 sq. ft. at building perimeter) of unattached membrane or substrate.	D		X	X	X	X   X

	1	l ———— I	1			l
SSM2 - For mechanically  attached systems, isolated  mechanical fasteners having  missing or loose components  or loss of attachment.			X     	x	X	X
SSM3 - For ballasted   systems, bare areas of more   than 4 but less than 100   sq. ft. (25 sq. ft. at   building perimeter).	   D         	 			X	X
M&R activities as required:	į					
	İ		X	X	XX	1000 1000 1000 1000 1000 1   X
SSH2 - Resecure or replace  missing fasteners and  components. Use slightly  oversized fasteners or  inserts. Cover fasteners  and any holes with new  membrane.	:		x x	×	x	X     X
SSH3 - Re-distribute  ballast to cover bare areas  where possible. Wind force  may require the use of  pavers or design changes.  Refer to a qualified de-  signer.	ĺ		x	×	x x	X
SSM1 - Cut open unbonded  areas and re-adhere. If  membrane cannot be re-  adhered because of insul-  ation deterioration, remove  old insulation and install  new.	D		x	x	Х	X
·						

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SSM2 - Resecure or replace  missing fasteners and com-  ponents. Use slightly over-  sized fasteners or inserts.  Cover fasteners and any  holes with new membrane.			X       	X         	X       	X   
SSM3 - Re-distribute   ballast to cover bare areas   where possible. Wind force   may require the use of   pavers or design changes.   Refer to a qualified   designer.			X 	X 	           	X   
MEMBRANE SUPPORT	-  -	1	ļ ļ	 	 	
Inspect for:	İ			=====	ĺ	
MSM1 - Warped or bowed	D   =====			X	=====   X	=====    X
insulation boards have been broken or displaced.				i I		
M&R activities as required:	į	i i			İ	i i
MSM1 - Cut membrane and re-  place insulation. Repair  membrane with new material.	! aj		X	X   X 	X	=====     X
   PATCHING						
  ===================================	i		THE LOSE SEC SEC SEC	   ===== 		
PAH1 - Other membrane	=====  D/P/R			====== V	****	
distresses of high severity			x	X   	х	X I
lare present within the lpatched area.	:	D/P/R   D	x	X	X I	X I
PAH2 - Patches are made	D/P/R			X		 X
with roofing cement.	D R		x	İ	x j	j
		D/P/R	x	X   	x	X
made with dissimilar materials.	<del></del> -		x	X	X	x
就說 說 12 12 12 15 16 16 16 16 16 16 16 16 16 16 16 16 16				****	=====	

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M&R activities as required:	İ	İ		İ	=====	į
PAH1 - Cover distressed	D/P/R D R	į	i X	X	X   X	X     X     X
·			   X   X	X     X	   X   X	X     X     X
PAM1 - Remove dissimilar  materials, clean affected  area, and repair with patch  of new membrane material.	D	#====	X	X   X 	X   X	X
DEBRIS AND VEGETATION	    -	{   	 		 	
management construction and the construction of the construction						=====     =====
DVH1 - Vegetation growth   which has penetrated or is   damaging the membrane.	D/P/R D R		x x	X ·	X   X	X     X     X
	  D/P/R  D R 		x	X	X	X     X     X
DVM1 - Vegetation which  does not appear to have  damaged the membrane.	D   		X	X	X	X     X
DVM2 - Solvents, oil, or other chemicals causing degradation to the membrane.	<b></b>   D 		X	X	X	   X
DVM3 - Foreign objects on   the roof.	   D 		х	x	X	X
	<b>====</b>	=====	#====	****	<b>===</b> ==	  =====

M&R activities as required:	1	<b>!</b>				
DVH1 - Remove vegetation	D/P/R  D R 	į	x	X     X	X   X   X	X
DVH2 - Remove contaminate   and damaged membrane parts,   repair with patch of new   membrane material.	]	:	X   X   X	X   X	X   X	
DVM1 - Clean surface of all  dirt and vegetation.	D   		X   X 	X   X	X	   X   
DVM2 - Remove contaminates   from roof membrane.	   D 		   X 	X   X	   X 	   X   
DVM3 - Remove foreign   lobjects from the roof.	D		X	X	   X 	   X   
IMPROPER EQUIPMENT SUPPORTS	İ		 	   == == == == 	   =====   	   = = #= =       
==================================	  -====	=====	İ		ĺ	į
EQH1 - Movement of support   has cut or punctured the   roof membrane.	ID R	_	   X   X	X     X	   X   X	X     X     X
EQH2 - The equipment is  bolted through the membrane  and the bolts appear not to  be sealed.			x X	X	     X   X	   X     X
EQM1 - Movement of the  support has displaced the  membrane or surfacing but  has not cut or punctured  it.		1000 1000 1000 1000 1000 1000 1000 10	X	X	X	X     X   
EQM2 - Equipment is bolted through the membrane but the bolts appear to be sealed.	D		X	X	X	X

			=====	<b>===</b> ==	l =====	=====
M&R activities as required:	İ	Ì	İ	j	İ	 
EQH1 - Repair damaged mem-  brane under equipment  support and install flash-  ing device appropriate to  the problem.	D/P/R D R	į	i I X	X   X	   X   X	X     X   
EQH2 - Install pitch pans  at support and flash into  membrane.	D/P/R   D R   B	•	X   X   X	X   X	X   X   X	
EQM1 - Replace improper  equipment supports with  devices allowing for move-  ment of equipment.	D		X   X	X	X	X     X   
EQM2 - Install pitch pans  at support and flash into  membrane.	D     	       	X   	X   X 	X   	X
PONDING	 	     			     	
  ===================================	   =====     =====	  =====    -====	   = = = =     = = = =	   =====     =====	   ====-     =====	   =====       ===== !
PDM1 - Ponding caused by   wrinkles or folds in the   membrane which are impeding   drainage.	D   	     	<b>X</b>   	X	x	X         
PDM2 - Ponding caused by warping or bowing of the substrate beneath the membrane.	   D 		X   X 	X	X	   X   
M&R activities as required:	====	====				
PDM1 - If ballasted, wrinkles can usually be moved and dispersed evenly through area. As necessary cut membrane, remove wrinkles, and cover with patch of new membrane material.	D		X	X	X	X
					*	

PDM2 - Cut membrane and  repair or replace uneven	D	 	X I	X	×	×	!
substrate. Cover cuts with  new membrane material.	 	 	 	   	 		i
		=====					
WET INSULATION	1	1	! }	 	 		ļ
	  =====	  =====	====== 	   m==mn	=====	   =====	i
Inspect for:		]		1			l
	=====	an see si	======================================	100年12年11年		INCLUSION IN INC.	١
Remove wet roof insulation,	D/P/R	}		X "		X	١
inspect the deck, and	1	• .	X	i .	), X	l .	l
repair. If necessary,	1	D/P/R	1	Χ	1	X	ı
replace the roofing system,		D	X	İ	X	ĺ	ĺ
including adjacent	1	1			!	1	
flashings.		!	1	! !	!	ļ	١
			.,				İ

# BUILT-UP ROOFING - MAINTENANCE & REPAIR

NOTE:

D = Deactivation
P = Periodic
R = Reactivation

Pfr = Preferred Min = Minimal

yr = year d = days

DAGE BIAGUING	Pfr	Min	D<1yr	D>1yr	D<1yr	D>1yr
BASE FLASHING 	PLL	MILI	R<45d	R<45d	R>45d	R>45d
Inspect for:				WT SM 405 SM 606	 	
<b>医克朗斯氏试验检检验检验检验检验检验检验检验检验检验检验检验检验检验检验检验检验检验检验</b>		****		****	100 M 200 M 200 M	
tears in flashing caused by deterioration or	:	  D/P/R	X   X   X	X	X	X
physical damage.	 	D 	A		A 	 
top of the base flashing which are not covered by	D/P/R D R	D/P/R		X     X	X	X
counterflashing or open  side laps in the flashing  which allow water to  channel behind them.		D   	X     	     	X   	
BFH3 - Grease, solvent, or  oil drippings on the base  flashing with deterioration  of the felts.	D R		x   x	X   X	X   X	X
BFM1 - Slippage, wrinkling,  blistering, or pulling of  base flashing material.	D I	   	<b>X</b> 	X   	X 	X   
BFM2 - Loss of surfacing with some deterioration of felts but no holes, splits, or tears.	I D		X	X	X   	X
BFM3 - Grease, solvent, oil drippings on the base flashing but no deterioration of felts.	D		X	X   	X   	X
BFM4 - Flashing has  temporary repairs.	ID		X	X	X	X
I AND NOTE AND AND AND AND AND AND AND AND AND AND	cr==r	also content per mut.	ALL SEC TON AND COLU.			

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M&R activities as required:	32 mm 170 180 32	•	   =====		   **=====		
BFH1 - Repair damaged base   flashing by overlaying each   localized defect with new   base flashing.	ID R		X	x X	X   X   X	X     X     X	
BFH2 - Install extension of	  D/P/R		 	 X	 	   X	
counterflashing over  exposed top termination of  base flashing. Three course  open side laps in base  flashing.	D R   R   R   R   R   R   R   R   R		X   X   X	X	X   X   X	X	
BFH3 - Remove contaminate and affected base flashing material. Prime surface and install new base flashing.	ID R		X   X	x	   X   X	X     X	
BFM1 - Cut and re-secure unbonded base flashing, mechanically fasten slipped flashing and apply cold patch over all repairs.	j ·		X	×	X     	X	
BFM2 - Prime exposed and deteriorated base flashing and coat with heavy bodied asphalt coating.	D I		X	×	X   	X	
BFM3 - Remove contaminates  from undamaged base flash-  ing, prime and coat areas  with heavy bodied asphalt  coating.	D     		X	X	X   	X	
BFM4 - Remove temporary repair material from base flashing, reinforce patch as necessary and coat with heavy bodied asphalt coating.	D		X     	X	X   	X	
						=====	

						====
METAL CAP FLASHING	;   	1   	!   	}   	 	     !
mentanusurus samusurus samusus     Inspect for:	   =====   		   ====     =====			  ======    ===
or displaced from its	D/P/R  D R 	  D/P/R		x X	 	x
original position.	 	D 	X 		X 	 
MCH2 - Corrosion holes have   loccurred through the metal   lon a horizontal surface.	ID R		X	X     X	   X	X
Surface:		D	X	^	x	
MCH3 - Metal coping cap has  missing joint covers where	D R	1	     X	х	   X	   X   
joint covers were   originally installed.		D/P/R  D	. X	X	X	X
MCM1 - Corrosion holes have occurred through the metal on a vertical surface.	D 	     	X	х	X	x
MCM2 - Metal coping cap has loose fasteners, failure of soldered joints, open joints, or loss of attachment.	D		Х	X	х	X
MCM3 - Sealant at reglet or top of counterflashing is missing or no longer functioning, allowing water to channel behind it.	 		X	X     X	X	
MCM4 - Counterflashing is loose at the top, allowing water to channel behind it.	D	<b></b>	X	X	x	   X   
MCM5 - Counterflashing does not extend over the top of the base flashing.	D		X	X	X	X
#P\$ \$P\$ \$P\$ \$P\$ \$P\$ \$P\$ \$P\$ \$P\$ \$P\$ \$P\$	====		=====	=====	HEED I	=====

445 165 165 265 267 267 367 361 365 365 365 365 367 367 367 367 367 367 367 367 367 367	-			****		
M&R activities as required:	   =====	   =====	)   ====================================			   =====
MCH1 - Reinstall displaced				x	V	×
metal cap flashing or re- place with new material.	DR	I  DR	X 	   X	X 	X
		I D	X	 	X	 !
	D/P/R		]	Х		×
If lashing with new corrosion resistant material.	DR 	I ID R	) X	   <b>X</b>	X 	   <b>X</b>
	<u> </u>	D	X	<u> </u>	į x	i i
MCH3 - Replace missing	D/P/R					X
joint covers on metal	ID R	I ID R	X	l I X	l X	   <b>     </b>
		D	x		X	
MCM1 - Clean and patch	D		X			X
holes in metal cap flashing  and coat entire surface	İ	•	ĺ			
with corrosion resistant	ĺ	1 	! 		 	
paint.		 	 		 	
MCM2 - Reseal failed joints	D	į	x	x	х	x
in metal coping cap and reattach.	! ! .	! 	 		 	 
MCM3 - Remove faulty seal-				X	   X	X
lant at reglet or top of		İ	•	•		
counterflashing and reseal.		 			! 	 
MCM4 - Reinstall displaced   counterflashing into its	D	į	X	X	x	x
original position and		İ			i 	! 
fasten.	 	 			 	   <del></del>
MCM5 - Add extension or re-	D		x	X	Х	X
place counterflashing to  cover top of base flashing.	 				[ 	
	=====		*****	****		
EMBEDDED EDGE METAL	! 				[	! !
计目标性阻制 化苯基苯基苯基苯基苯基苯基苯基苯基苯基苯					 	 
Inspect for:						
EMH1 - Stripping felts are	)/P/R			X	w == e = =   	X
missing or loose.	D R	D/P/R	Χİ	<b>x</b> :	ı X İ	إ
		D	X	<b>Λ</b>	X	<b>X</b>

1	1	1	1	1	1	l
EMH2 - Splits in the  stripping felts above the  metal joints.	  D/P/R  D R 	•	X   X   X	X	X   X	X   X   X
EMH3 - Holes have occurred   through the metal.	  D/P/R  D R 		X   X   X	   X   X	X   X   X	X   X
EMH4 - Loose or lifted  metal flange with  deterioration of the  stripping felts.	D/P/R D R	    D/P/R  D	X	X   X   X	X   X   X	X   X
EMH5 - Holes or joint  movement are present in the  interior gutter.	!	:	x	×	x   x	X   X
EMM2 - Nails under the stripping felt are backing out.	D 		X   X	X 	X	X
EMM3 - Corrosion of the metal.	D I	<b></b>    - 	X   X	X   	X	X   X
EMM4 - Loose or lifted metal flange without deterioration of the stripping felts.	<del></del>   D	       	   X 	   X 	X	   X
M&R activities as required:	i				<b>建球面积</b> 和	
EMH1 - Prime and three course edge metal flange in affected area.	D/P/R D R	j	x	X X X	X	X X
EMH2 - Place stripping felts and surfacing material over split areas.	D/P/R  D R 		х х	x	x	x x
	D/P/R D R		X	x	x	X   X
·		,				

	1					
EMH4 - Refasten loose edge metal flange into solid support. Replace stripping felts and surfacing material.	ID R		x   x   x	x x	X X	X
EMH5 - Clean interior of gutter to smooth bare metal. Line gutter with waterproof membrane.	•	•	   X   X	x x	x   x	X     X
EMM2 - Remove loose nails in embedded edge metal and renail into solid support. Three course over new fasteners.	D 		X	X	X	X
EMM3 - Remove surface cor- rosion, prime and coat edge metal with corrosion resistant paint.	D	       	X   X 	X	X   	X   
EMM4 - Re-nail loose edge   metal flange into solid   support, Three course over   new fasteners.   FLASHED PENETRATIONS	D		X   X   	X   X         ========================		X
	D/F/R D R	į	   <b>x</b>	   ======   ======   X   X		
FFH2 - Flashing sleeve or	  D/P/R  D k		     X	x x	x   x	x
FPH3 - No flashing sleeve	D/P/R	D/P/R  D	X	X	X   X	X   X

	1	1				I 1
FPH4 - Penetration is not   sealed at the membrane   level.	D/P/R D R	•	x	X	X X	X     X
FPM1 - Edge of stripping  felts is exposed but there  is no apparent felt  deterioration.	D     		X	X	X	X
FPM2 - Top of flashing  sleeve is not sealed or has  not been rolled into  existing plumbing vent  stack.	D	"   ·	×	X	X	<b>X</b>
FPM3 - The sleeve or  umbrella is open or no  umbrella is present (where  required).	D   	       	X	x	X 	X
FPM4 - Metal is corroded.	D   	   	X 	X   	X   X	X     X
M&R activities as required:	<b></b>					MAX THE SHE WAY 201
FPH1 - Clean, prime and  seal unflashed flanges on  flashed penetrations.	D/P/R D R		×	X   X	X   X   X	X
	   D / P / R   D R 	:	x x	X   X	X   X	   X     X
FPH3 - Install missing			x x	X	x   x	   X     X
FPH4 - Prime surface and three course unsealed flashed penetrations.			X	×	x	   X     X .

	1	1	I	l		
FPM1 - Restore surfacing over exposed stripping felts around flashed penetrations.	D		X	X	X   	X
FPM2 - Seal top of flashing sleeves around flashed penetrations.	D		X 	X 	X 	X
FPM3 - Install an umbrella or weather hood on flashed penetrations.	D		X	X	X	X 
FPM4 - Remove surface corrosion, prime and coat with corrosion resistant paint on flashed penetrations.			X		X	
PITCH PANS		nos son sin: con acc		255 CA-358 REL BEST	 	need both had been which
				ı	,	!
Inspect for:	į	į	j		į	
the part has been that man have men and here and here are here seen well shall man here that here that have been	1		#100 MAX MAX MAX MAX	150 Me 500 TAK 1651	 	
	D/P/R	İ	İ			mmama X
the part has been that many hear man man were at you have some more were their man hear that that that have	D/P/RD R	j 	x	j	     X	
the part has been that many hear man man were at you have some more were their man hear that that that have	D/P/RD R	İ	x		x   x	X
PPH1 - Metal Corrosion	D/P/R  D R 	    D/P/R  D 	×	X	i	X
the part has been that many hear man man were at you have some more were their man hear that that that have	D/P/R  D R 	    D/P/R  D 	×	j	i	
PPH1 - Metal Corrosion  PPH2 - Sealing material is	D/P/R  D R      D/P/R  D R	  D/P/R  D 	x   x 	X	X 	X
PPH1 - Metal Corrosion  PPH2 - Sealing material is	D/P/R  D R      D/P/R  D R	  D/P/R  D 	x x	x 	X 	x 
PPH1 - Metal Corrosion  PPH2 - Sealing material is below metal rim.  PPH3 - Stripping felts are	D/P/R  D R      D/P/R  D R	  D/P/R  D      D/P/R  D	x   x 	x 	X 	x 
PPH1 - Metal Corrosion  PPH2 - Sealing material is below metal rim.	D/P/R  D R      D/P/R  D R	  D/P/R  D      D/P/R  D 	x x x	X   X   X	X 	x     x 
PPH1 - Metal Corrosion  PPH2 - Sealing material is below metal rim.  PPH3 - Stripping felts are	D/P/R  D R      D/P/R  D R   	  D/P/R  D    D/P/R  D 	x x x	x x	X     X   X   X	x 
PPH1 - Metal Corrosion  PPH2 - Sealing material is below metal rim.  PPH3 - Stripping felts are exposed or deteriorated.	D/P/R  D R      D/P/R  D R      D/P/R  D R	  D/P/R  D      D/P/R  D      D/P/R  D	x x x	X   X   X	X     X   X	x     x 
PPH1 - Metal Corrosion  PPH2 - Sealing material is below metal rim.  PPH3 - Stripping felts are exposed or deteriorated.  PPH4 - Sealing material has	D/P/R  D R    D/P/R  D R    D/P/R  D R	  D/P/R  D    D/P/R  D    D/P/R  D	x x x x	X   X   X	X	x     x 
PPH1 - Metal Corrosion  PPH2 - Sealing material is below metal rim.  PPH3 - Stripping felts are exposed or deteriorated.  PPH4 - Sealing material has cracked or separated from	D/P/R  D R    D/P/R  D R    D/P/R  D R 	  D/P/R  D  D/P/R  D 	x x x x	x	X     X   X   X	x   x   x   x   x
PPH1 - Metal Corrosion  PPH2 - Sealing material is below metal rim.  PPH3 - Stripping felts are exposed or deteriorated.  PPH4 - Sealing material has	D/P/R	D/P/R   D   P/R   D   P/R   D   P/R   D   P/R   D   P/R   D   P/R   D   P/R   D   P/R   D   P/R   D   P/R   D   P/R   D   P/R   D   P/R   D   D   P/R   D   D   P/R   D   D   P/R   D   D   P/R   D   D   P/R   D   D   P/R   D   D   P/R   D   D   P/R   D   D   P/R   D   D   D   P/R   D   D   D   P/R   D   D   D   P/R   D   D   D   P/R   D   D   D   P/R   D   D   D   P/R   D   D   D   P/R   D   D   D   P/R   D   D   D   P/R   D   D   D   P/R   D   D   D   P/R   D   D   D   P/R   D   D   D   D   D   D   D   D   D	x x x x	x   x   x   x   x	X	x   x   x   x

MAN NOW NAME HANT NOW AND NOW WAS NOWN THAN THAT NAME AND NAME AND NAME AND AND AND AND AND AND AND AND AND AND	**************************************	000 END THE SEC NA				THE MES COS BUT DATE
M&R activities as required:		 				10.1 Mar 200 Mar 200 Mar
PPH1 - Remove all corrosion			X	X	X	X
pitch pans with corrosion resistant paint or replace damaged pitch pan.		D R	   X 	X 	   X 	X
PPH2 - Fill pitch pans with	D/F/R		**	X		x
sealant and crown to assure water runoff.	D R	D R	×	<b>X</b>	X     X	X
	D/P/R	:		X		Х
course pitch pans having deteriorated stripping felts.	ID R	D R	X   X	X	X     X	X I
	D/P/R			X		X
pitch pans with sealant and crown to assure water	ID. R	l D R	X 	   X	l X	.     <b>X</b>
runoff.		D Vises tables of	X  X	ب مداراً بُذِيدًا أ	j <b>y</b> ;	I Mariana I
DRAING AND ROOF LEVEL SCUPPERS					i 1	
	100 to 100 to 100 to 100					Nac 1002 1005 5006 3005
Inspect for: 		)	i   ka sa baka sa	   ======	21 22 22 22 22 22 	lage and have alread found
DRH1 - Stripping felts have				X		i x
holes or are deteriorated.		  D/P/R	<b>X</b> 	   X	<b>X</b> 	(
		D	X	 	X	
	D/P/R	•		x		X
loose or missing from drain body or bolts are missing.		  D/P/R	X 	×	) X	i !   X
		D L	X	İ	X	 
DRH3 - Drain is clogged.	D/P/R	•		X		X
	DR	  D/P/R	X 	)   X	X 	i 1 I X 1
		D	X		i x	   
	D/P/R	-		X		X
broken or holes have occurred through the metal.	ID R	  D/P/R	X	)   X	X 	   X
	j 	D	X		х	

	ا سنمسما	l	1 [		-	
DRM1 - Stripping felts are exposed but there is no apparent deterioration of felts.	D		X   	X	X	X
DRM2 - Strainer is broken or missing.	D 		X	X 	X	X
DRM3 - Scupper shows loss of paint or protective coating or start of metal corrosion.	D   		X	X	<b>X</b>	X
M&R activities as required:  DRH1 - Remove deteriorated  stripping felts around  drains and scuppers, clean  surface and prime. Replace  stripping felt and restore  surfacing material.	ID/P/R ID R I	Ì	i I x			We all the let 184
	  D/P/R  D R 	:	X   X   X	X   X   X	X   X   X	X     X     X
DRH3 - Remove foreign material clogging roof drains.	D/P/R D R	•	X   X   X	X	X   X	X     X
DRH4 - Install new scuppers in place of broken or cracked scuppers.	D R		X   X	X   X	X   X   X	X
DRM1 - Prime and coat sur- face of roof drains having exposed stripping felts with heavy bodied asphalt coating.	D   I   I		X   	X	X	X
DRM2 - Install new drain strainers where broken or missing.	D		X	X	X   X	   X

DRM3 - Remove all loose   paint and corrosion around   distressed scupper, prime   and coat with corrosion   resistant paint.	  D       		X           	   X           =====	X	X
BLISTERS	   	   	   	 	   	
					mage enture est	wasaa
Inspect for:	   mss====		   <b>=</b> ====			
The state of the s	D/P/R D R		×	X 	X	X
<u>_</u>	İ	D	X		X	į į
BLM1 - The felts are  exposed or show  deterioration.	   D 		   X 	X	X	X
M&R activities as required:						
1	D/P/R D R	į	×	X	<b>=====</b>	X   X   X
		[D	X		X	
material on blisters which   have exposed felts.	D	1000 (122) (124 ( 124)	X   X	X		X
TENER HOLD HERE HERE HERE HERE HERE HERE HERE HER	=====     	== = = =       				
Inspect for:						
•	D/P/R	i	х	Х	     X	Х
		D/P/R		Х	   X	X
	D/P/R D R	•	X	x		X
top ply, exposing underlying plies.	 	D/P/R	x	Х	х	x

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RGM1 - The ridges are		ĺ	X I	X	X I	X I
raised and clearly visible.			ļ	ļ	!	1
The surfacing on the ridges				į		
lis gone and the top felt is		! !	. i	! !	]	
exposed.	l Isanana ami'				:==:::::::::::::::::::::::::::::::::::	27 22 22 23 14
IM&R activities as required:		*** ***			, 	i
中国生活性性は自体性は対象性に対象性を対象性に対象性に対象性に対象性に対象性に対象性に対象性に対象性に対象性に対象性に		27 157 124 224 224	经基础证明	क्षां त्या कर्म का क्यां	mmamm	
RGH1 - Remove broken ridges				X	I	X
repair membrane and resuore			X		X	
surfacing material.	ļ ,	D R		X		X į
	1	ן מן	X		X	 
	D / D / D			. X	<b></b>	
RGH2 - Remove broken ridges  repair membrane and restore			Х		i x	
surfacing material.		D R		X	· ·	xi
1.	i	ם	Х		X	İ
have their open park tight your page them a vis mind never this draw him forth vider which made find mind detti finds fi						
(11,011,011,011,011,011,011,011,011,011,	I D		ı x	X	X	X
[material on ridges which	ļ	!		!		
have exposed felts.		 	 	 		les en en en en el
	}		, 	i		, <b>-</b> ,
SPLITS	İ	İ	i	<u> </u>		i i
	j	İ	}	ĺ		
and the see are the total than the test and the test test test and the see test on the see test see test test test test	====	=====	1 41 12 12 12 12		==:::::::::::::::::::::::::::::::::::::	
Inspect for:	ļ	!	<u> </u>	ļ		
	•	1		l X	11   12   13   14   15   15   15   15   15   15   15	====     X
SPH1 - An unrepaired split   or a repaired split which	ID/E/R		X	1 ^	i x	. ^
has started to re-open.	•	D/P/R		i x	, ., ,	i x
	į	מו	i x	İ	i X	j i
		*********		***	**************	
M&R activities as required:	•	!	l	1	1	1
	,					
• •	D/P/R	:	•	Į X	0	X
restore surfacing material.	ID R	I IDR	X	i X	j X	i I X
	! !	מו	! X	, A	X	· ^ ·
AND THE THE THE THE THE THE THE THE THE THE		####################################			== == = ::	
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HOLES	!	!	!	!	<u> </u>	!
	 	1	 	 	 	<u> </u>
Inspect for:	I we are and set at.	************************************	====================================	41 <b>== =</b> 12 = 12   	 	### <b>#</b> ##   
	   == == == == == == == == == = = = = =	  :===================================	=======	   ======	   ===================================	   ===================================
·	D/P/R	•	i	l X		X
			X		X	, <u> </u>
1	ĺ	  D/P/R	ĺ	X		i x i
	ļ	D	X	İ	X	
	====	====	二甲基苯基	おおおおさ	=====	mrenn

	*****	mamma m	***	~~~		
M&R activities as required:	į					
HLH1 - Repair holes and   restore surfacing.	=====   D / P / R   D R		x	X	X   X	X
	I.	R   D   =====	X	X 	X   X 	X
SURFACE DETERIORATION	1 	 	   		 	
Inspect for:		i di	j		ĺ	İ
SRH1 - On aggregate	D/P/R		X	X	X	X     X     X
SRH2 - On mineral surfaced-  cap sheet roofs, the cap  sheet felt is deteriorated.	ID R		X	X	X   X	X     X
roofs, alligator cracks			X	X	X   X   X	X
	_		X X	x	X   X   X	X     X
SRM1 - On aggregate  surfaced roofs, the  aggregate is displaced and  the top coat of bitumen is  exposed.	— — — — —     D     		X	X	   X   	X   X
SRM2 - On mineral surfaced- cap sheet roofs, the mineral granules have come off the cap sheet, exposing the underlying felt.	 		X	X	X   X 	X
SRM3 - On smooth surfaced roofs, no surface coating exists or there is a loss of surface coating.	D		X	X	X   X   	

	1	l	I				ı
SRM4 - On smooth surfaced  roofs, alligator cracks  extend down through the  bitumen to the top of the  felt.			X     	X	X   	X	 
M&R activities as required:							] 
SRH1 - Repair deteriorated   felts and restore surfacing   aggregate.	D/P/R  D R 	l	X	X	X	X	      -
SRH2 - Repair deteriorated   membrane surfaces and   restore surfacing material.	D R		   X   X	X	X	X X	
SRH3 - Repair affected area   and coat surface with hot   bitumen only.	D R	_	X   X	x	X I X	X X	
SRH4 - Remove walkway, re- lpair damaged membrane and replace walkway.	D/P/R D R		x   x	X	X X	X     X	
SRM1 - Reinstall aggregate  on exposed membrane  surfaces.	D		X	X	X   	X   X	
SRM2 - Restore granules on  exposed surfaces.	D   D 		X	X	X	X	
SRM3 - Coat exposed  surfaces with asphalt  emulsion.	D		X 	X 	X 	X	
SRM4 - Remove excess  asphalt in affected areas  and coat with asphalt  membrane.	D		X	X   	i X	X   	111111
				=====	====		1

	****	ec an un an un	## ## ## ## ##	संस्थानाम्	****	## == 12 GS Es
SLIPPAGE	 	   	·   	. *	    	
Inspect for:	*****	   == ================================		***************************************	******	*******
SLH1 - More than 2 inch of   slippage has occurred,   There is evidence of   humping and wrinkling.	D/P/R D R	İ	   X	X	~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~	X
SLH1 - Remove membrane   irregularities in area of   slippage, fasten and repair   membrane and restore   surfacing material.	D/P/R D R	  D R	i X	MARCHINESE X	VAL 1000 NOT AY NOTS	con les ton idea sez   X   X   X
PATCHING    management management musika mengerikan men	200 UP   500 CIN No.	MARKET MET AND				
PAH1 - Ruptures or other	D/P/R	ļ	   X	X X	X   X   X	. X   X
PAM1 - The materials and  workmanship of the patch  are not equal to or better  than the existing membrane.	D		X	X	X	X
M&R activities as required:  PAH1 - Replace distressed	D/P/R D R		************************************	X	İ	THE SERVICE
PAM1 - Replace patches hav-   ing inferior repair mater-   ial with same or better   quality than existing   membrane. Restore surfacing   material.	D		X	X	X	

	1		1 ma mar no mar ma	1 1000 1000 1000 1000 1000		l =======
DEBRIS AND VEGETATION		   	     	     	     	     
Inspect for:   DVH1 - Grease, solvent, or   oil drippings on the roof,   causing degradation to the   membrane.	D/P/R	:	X	X   X   X	######   ######   X   X	
DVH2 - Vegetation roots  that have penetrated the  felts.	D/P/R	•	X	X	X   X	X   X
DVM1 - The collection of  foreign objects which are  not removed from the roof  during the inspection.	D		X   	X   X 	<b>X</b>	X   X
DVM2 - Grease, solvent, or oil drippings on the roof which show no degradation of the roof membrane.	D		X	X	X	X
DVM3 - Evidence of vegetation, but not penetrating the felts.	D		X	X	X	Х
M&R activities as required:				HON WILL HOSE (ALT 120)	MAY 500, 107 108 (JR	Manual Tar
DVH1 - Remove contaminate		:	X	X X	X	
	D/P/R		x	x	X   X	X   X   X
DVM1 - Remove foreign objects from roof.	   D 	491 ties edin vää luus	X	X (	X	X
	************************					

DVM2 - Remove contaminate from undamaged roof members and restore surfacing material.	1		X	X	X	X
DVM3 - Clean surface of all dirt and vegetation.	D 	i ! !	X	X	х	x
<b>搬送起车车车车车车车车车车车车车车车车车车车车车车车车</b>		************************************			10 mm mm (m4 mm 10 1	四二二二二十二二二二二二二二二二二二二二二二二二二二二二二二二二二二二二二二二
IMPROPER EQUIPMENT SUPPORTS	1					
Me party lage sand made desp benef lage later and since then bed only single send under some later later and talk some new	Fra ma emp mer met		AUG 1002 1005 \$155 3051			
Inspect for:			Ma max max max max	<b>minsis</b>   	AGE 405 334 Dec log	
	D/P/R		x	X		X
membrane.		D/P/R	1	X		X
. Mai tien ten mer jobs tien seel seel jaar mer mit mit den oor oor teen het oor nie see hill inte sok jaar oor oor her		D 	X 	 	X	
BQH2 - The equipment is bolted through the membrane	D/P/R		   X	X	<b>X</b>	X
and the holts appear not to		D/P/R		×		х
be water tight.		D 	X	·	X	
BQM1 - Movement of the	מוֹ		×	X	X	X
displacement of the roof surfacing but has not damaged the membrane.						i
EQM2 - The equipment is bolted through the membrane and the bolts appear to be sealed.	D		X   	X   X	X	<b>X</b>
Mar antivities as required:		) ************************************		100 100 100 100 100 100 100 100 100 100	## ## ## ## ## ## ## ## ## ## ## ## ##	<b>阿斯萨希腊</b>
EQH1 - Repair damaged mem-		•		X maxamanar	電影球機器	X X
hrane under equipment sup-	ID K	D R	X	X	X	X
device appropriate to the problem.	<u> </u>	D	i x	- <b>-</b>	x	4ª
MQH2 - Install pitch pans	D,P/R			X	446, lot-sum '640 may	
ut support and flash into membrane.	D R	D R	Х	x	Х	i
verticentum de sept e sept s		ם ב	x	<b>^</b>	х	X
and the two can and had may ded ofter tops one may not , so man well fifth han how with some over their date and other with						

					No. 407 409 409 1109		
EQM1 - Replace improper equipment supports with device allowing for move-ment of equipment.	D		X	X	X	X   	
EQM2 - Install pitch pans  at unflashed supports and  flash into membrane.	D	 	X 	X	X	X	
WET INSULATION		ANDER MICE AND STORE	and and half may have	<b>化基质性</b>	\$100 mage way 600g gaal		
M&R activities as required:			<b> </b>			 	
Remove wet roof insulation, inspect the deck, and repair. If necessary, replace the roofing system, including adjacent flashings.	D/P/R D R	-	X	X	X	X   X	
							Ĺ

# SHINGLE ROOFING - MAINTENANCE AND REPAIR

NOTE:

D = Deactivation

P = Periodic

R = Reactivation

Pfr = Preferred

Min = Minimal

yr = year d = days

| Pfr | Min | | | STEP FLASHING |Inspect for: |SFH1 - Holes in metal |D/P/R| | SFH2 - Exposed gaps at top | D/P/R | X | | of step flashing. | D R | X | X | | D/P/R | X | X | D/P/R |D/P/R| on roof level surface. SFM1 - Corrosion holes have D |SFM2 - Step flashing has |D | | X | X | X | X |temporary repairs. |M&R activities as required:| |SFH1 - Replace damaged step|D/P/R| | X | iflashing. |SFH2 - Resecure loose step |D/F/20|
|flashing and caulk with |D R| | X |
|flashing and caulk with |D R| | X | | X | | X  $\mathbf{i}$   $\mathbf{x}$   $\mathbf{i}$ 

4	l	l	1			
SFH3 - Replace damaged step  flashing with new corrosion  resistant material.		:	x	x x	x x	x x
SFM1 - Clean and patch hole  in metal step flashing and  coat entire surface with  corrosion resistant paint	D   D 		X   X	X	X	X   X 
SFM2 - Perform appropriate  repair for either vertical  or roof level surface.	D   		X   X 	X   X 	X   	X
   METAL CAP FLASHING 	   	   	   	   	   	   
BEER BEER BEER BEER BEER BEER BEER BEE						
•	D/P/R D R	Ì	   X   X	X X	x X	x   x 
·	   D/P/R   D R 	:	X   X	х 'X	X	   X   X
MCH3 - Metal coping cap has   missing joint covers where   covers were uriginally   installed.	D R	:	X	x	×	
MCM1 - Through metal  corrosion on vertical  surfaces.	D		X	X	X	   X
MCM2 - Metal coping cap with loose fasteners, failure of sealed joints, open joints, loss of attachment.	D	sea wer den et à sace	X	X	X	<b>X</b>
MCM3 - Sealant at reglet or top of counterflashing is missing or no longer functional, allowing water to channel behind it.	D		X	X	x	X

1 May 2004 1 May 2004						 
MCM4 - Counterflashing is   loose at top allowing water   to channel behind it.	D   I	     	X	X   	X   X	X     X
MCM5 - Counterflashing does  not extend over step   Lashing.	D		X	X	X	X
M&R activities as required:						
MCH1 - Repair displaced   flashing or install new   flashing.	D/P/R		X	Resourcesture	X   X   X	X
MCH2 - Replace metal cap  flashing with new corrosion  resistant material.	D/P/R D R	i	X X	X   X	X	X     X     X
MCH3 - Replace missing joint covers on metal coping cap and reattach.	D/P/R   D R   I		x	X	x	X
MCM1 - Clean and patch holes in metal cap flashing and coat entire surface with corrosion resistant paint.	D   D 	Andre code code code drive	X   	X	X X	<b>X</b>
MCM2 - Reseal failed joints in metal coping cap and reattach.	D	Tipe-make man qual 1 - 4	X 	X	X	X
MCM3 - Remove faulty seal- ant at reglet or top of counterflashing and reseal.	D 	     	X	X	X   X	X
MCM4 - Reinstall displaced counterflashing into its original position and fasten.	D 		X   	X	X	X
MCM5 - Add extension or replace counterflashing to cover top of step flashing.	D	*****	X	X ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	X	X

sing pair pich dala baja basa basa basa basa basa basa bas	ME SHE ME MAYT		100 Mar 100 MA 100 MA	165 306 855 Van Well 		Hand hade pand bloom colle
FLASHED PENETRATIONS	i i	!   	   			
Inspect for:	İ		Ì	1000 stale 1000 ties. (S. )	ĺ	
FPH1 - Holes, cuts, or	=====  D/P/R	1		meansures	minner in free are	=== sa se se se se   X
tears in flashing sleeve or		i .	į X		X	
metal ourb.	 	D/P/R	X	X	   X 	X 
	D/P/R	ì	X	X	     X	X
hieseur (where reduired);	in K	D/P/R	İ	×	į ~~	x
uter land toph total table land and over due has pain top some one and pape again and one came bake only some some part par		D	X	-	X	 
FPM3 - Top of flashing sleeve is not sealed or rolled into the existing plumbing vent stack. Clamping band is loose or missing (where required).	D         	 	<b>x</b>    -  -		· <b>X</b>	<b>x</b>
شعر لمنت المنز والحد لمنز (الحد موت المنز		-				
TPM4 - The sleeve or umbrella is open or no umbrella is present (where required).	D   	 	X   	X   	X     	<b>X</b>   . 
FPM5 - Corrosion of metal.	D		X	X	X	X
mmmmmmmmmmmmmmmmmmmmmmmmmmmmmmmmmmmmmm	İ	İ		İ	į	
FPH1 - Pemove damaged	D/P/R	•	स्था भागा स्थापन स्थापन स्थापन र	urusmesearu/ X	And and and and and and and	manuar X
flashing sleeves or curbs			X	<b>`</b>	, x	Ì
and replace.	<u> </u> 	D R	 !	X	   <b>X</b>	X
NOT the limit that AM the ends for more you up of the last date have you upon you past you also have have have been seen and						
FPH2 - Install missing flashing sleeves on flashed	D/P/R  D R		(   X	X	   X	X
penetrations.		D R	'-	X	<del></del>	X
And the last ways and the last and the case and the co. in the last and the case and the case and the case and		D 	X		X	girl file and 140 mg
FPM3 - Seal top of flashing sleeves around flashed penetrations.	D	 	X I	Х	X	X
the first and first the sea and the that shad had see and of 1 and that the sea of the this that first and the sea of the this that the sea of the this this this ten out that the thin the ten out that the thin the ten out that the thin this ten out that the thin the ten out that the ten out that the ten out that the ten out that the ten out that the ten out that the ten out that the ten out that the ten out that the ten out that the ten out that the ten out that the ten out that the ten out that the ten out that the ten out that the ten out the ten out that the ten out the te	900 out 1000 out 1000					
FPM4 - Install an umbrella	D	į	x	х	X	X

or weather hood on flashed penetrations.		 				
FPM5 - Remove surface cor-   rosion, prime and coat   metal flashing with cor-   rosion resistant paint.	Emm##		New 11   X	X	X	X
VALLEY FLASHING Inspect for:			 			Norman and the state of
water wate	mmumm ID/P/R	1	was blue and blue test	X		X
flashings, corrosion holes through the metal.	D K	1	į x	X	X	
The state of the s		D	X		X	
VFH2 - For mineral surfaced		:	   	X	} .	X
llaps are separated or not	ID R	D/P/R		X	X 	X
sealed down.	<del> </del>   ======	D 	X		X 	 
VFH3 - Shingles have  separated from valleys.	D/Y/R  D R		   X	X 	   <b>X</b>	<b>X</b>
1	İ	D/P/R	X	X	) ) <b>X</b>	X
Non activities as required:	NAME OF STREET	100 pp 100 dp 400	198 944 964 171 1813		100 No. 100 No. 201	*****
医福油苦苦苦菜素 医乳球 医腹膜 医腹头 经金属的 医胃炎 医多种	D/P/R	LIMM page Shake Salah Shake B	***************************************	 		 
be repaired with caulk or  sheet metal and caulk.	DR		×	İ	×	j i
Extensive deterioration may		ם	×	X 	×	X
require replacement of valley flashing.		i i		! !	 	
	D/P/R	•	****	X		X
amounts of plastic cement between plies.	D R	D R		   X	<b>X</b> 	X
ويو ويل لا الله الراح دوم فيها ويمن مسد سعد المن يشم ومن ويمن فيدا فيمن المناه من مناه ويان المناه المناه مناه	\$100 DOD 1945 WIN HAD	D 	X		X	·
VFH3 - Apply liberal  amounts of plastic cement	D/P/R		×	X	×	x
between shingles and flashing.		D R		X	, , , , ,	х
THE REAL CHAIN THE WAS THE THE THE THE WAS THE WAS WITH THE WAS THE WAS THE WAS THE WAS THE WAS THE WAS THE THE WAS THE WAS THE WAS THE WAS THE WAS THE WAS THE WAS THE WAS THE WAS THE WAS THE WAS THE WAS THE WAS THE WAS T	<b>推制项票</b> 和	INTERPRETATION	<b>光田米高</b> 村	100 ME AND SEC. SEC. SEC.	では、日本日本日本日本日本日本日本日本日本日本	) 

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i	CAULKING							İ
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1	Inspect for:		i	İ				İ
	CAHl - Deteriorated,	#####   D/P/R	ĺ	i	l X		=====	   •
i	split, or missing caulk on	DR	ļ	×		x		
1	flashing or ocunterflashing.	1	D/P/R	X X	t sie <b>X</b> . jui I	] <sub>( )</sub>	-, <b>X</b>	
1	- per over over the task and the test feet has been been the more boat high pers over the pers over the person person in the contract the contract the person person person been been been been been been been be	MR 185 181 251 185	And the last that that	See held had been der-	, was see not not not i			ŀ
1	M&R activities as required:	he setter server	l ne eservata		 		Status en me	
	CAH1 . Remove old caulk,	D/P/R	i '	} }	X.	, ———, 	X	ļ
	cluan, and apply elastomeric sealant.	D R	III IDR	X	   X	) X	   X	
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	CLAWING	10				i İ		ļ
1	the first and the men's day the last man take may take the last man that man that was last that take the first that the last the last that the last t		) I men men men somi mek	 	 	)   nor ern and because	er met die her het.	
ļ	Inspect for:				1			İ
ł	CLM1 - Shingle is clawed	{mmmmm ID	paurinaer zeron:	¦ ====+   X	in X	X X	metererien X	
	and center of tab is raised	1 <del>-</del>	ļ:			į	ļ	į
	more than 1/4 inch.	ER 100 KA 300 KS	.   New market market	200 lift Flor lift Flor	। । स्टब्स्स स्थासका स्था	tain are re-country	Mark agent come mean nave	i I
į	M&R activities as required.	İ		İ		har Mikaliwa sa ang		į
ļ	CLM1 - No repair, Extensive	D	AND THE SERVE	X	X   X	X	X	1
	clawing may require roof replacement in the near	1	1	]	ļ	1		-
	future.	! 1	! 	<u>;</u> 	<u>'</u>	ι 1	) 	1
	AND MAIL THE REPORT OF THE PARTY OF THE PARTY OF THE THE THE REPORT OF THE THE THE THE THE THE THE THE THE THE	MICH BASE (FILE TALKS TATE)		ESS THE DATE SEE	15 to 34 to 34 	Att and the style art	100 100 WE WAR	1
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İ			Ministra 	   *** **** ### ###	in mai on es: the	   manaaa		
į	Inspect for:			j				ĺ
1	INMI - Nails pushing up on	D  sews====	www.m.m.c. 	X   X	***	X	**************************************	
i	shingle above head.	ĺ	į	1		j		1
1	MuR activities as required:	mumert st	maraqaa baraa 	marenanicanicani 			 	1
1		•	211 3M SEE 112 NO.			1		į
•	INM1 - Remove accessible nails (under tab), seal	I D	<b>;</b>	X	X	X 	<b>) X</b>	1
	hale with plastic dement, and renail in new location.			į į				ĺ
ı	and renair in new rocation.	١ .		į į		l		l

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200 And See Last See Last See Last See 200 And 200 And 201 And			*====		*====	====	١
BREAKAGE/DAMAGE	   	}   	    -		   		!   
			<b>東京政治協</b> 				   
BRH1 - Breakage or deter-  ioration of shingles  extending beyond the tabs.	D/P/R  D R 	D/P/R		×	X	X	
BRM1 - Granule loss or	    D	D 	X     X	X	X     X	     X	İ
vegetation resulting in  deterioration of shingle.		   			   		
BRM2 - Wind, traffic, or   hail damage to tabs only.  Missing tabs.	D		X	X	X	X	   
M&R activities as required:							
BRH1 - Replace isolated  damaged shingles. Extensive  problems may require roof	D/P/R D R	•	x	X   X   X	X	X   X	   
replacement.		D	X	 	X	 	
BRM1 - Replace isolated  broken shingles. Extensive  damage may require roof  replacement.	D   		x	x	X	X   	
BRM2 - Replace isolated  broken shingles. Extensive  damage may require roof  replacement.	D		X   	X	X   X 	X   X 	     
BLISTERING	<b></b>						]     
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	D		X	X	X	X	.
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BLM1 - Apply mastic.	D		X	X	X	. X	
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→ 新祖祖祖祖祖祖祖祖祖祖祖祖祖祖祖祖祖祖祖祖祖祖祖祖祖祖祖祖祖祖祖祖祖祖祖祖		=====	का का व्यावस्था			****	
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TOOGH HADO	:	: i	1				
LOOSE TABS	!	!	!	!	!		
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LTM1 - Tab seal strip has	ID		X	X	1 X	X	l
not adhered to underlying	İ	į	ĺ	ĺ	İ	i	١
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(shingle:	i	!	!	!	!		ŀ
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LTM1 - Carefully lift loose	ĮD	1	i X	l X	X	ı x	ļ
Itab, place plastic cement	1		1	l	1	į	ı
lunderneath tabs, and press	i .	1	i	i	i	i	i
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in place.	1	1	1	!	!	ļ	l
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IDM1 - Damage to eave	I D		X	X	X	X	١
and/or lowest courses of	i	i	İ	i	İ	İ	i
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shingles which is	1	ļ.	İ	!	!	ļ	ļ
attributable to ice	l	1	1	1		Į.	l
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M&R activities as required:			I	l		1	ł
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IDM1 - Repair of this	ai	i	i x	i x	i x	i x	i
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problem may require place-	ļ	İ	1	j	I	I	ł
ment of an ice shield under	1	1	1	1	1	1	۱
the shingles from the cave	i	i	i	į	i	i	í
	! !	!	1	,	·	!	!
extending 3 to 6 feet up	i	f	l	l	Ī	l	ĺ
slope. Ventilation improve-	]	{	!		1	İ	l
ments may also be desirable	İ	i	ì	İ	İ	i	i
I management with the contract of the contract	) 	l I	) 	 	l I		ŀ
	the terminal line	40° 321 30° 30° 3/1		l marraman and	*****	and the late of the late.	١

		,	=====		====1:	
DEBRIS AND VEGETATION	1	<b>(</b>	   	}   	   !	
Inspect for:   Inspect for:   DVM2 - Foreign objects on   the roof or gutters.	1	İ	  =====    =====   X	ĺ		
   ###################################			   ===================================		   #==== 	
DVM2 - Remove foreign  objects from the roof.	D	 	X   	) X   	<b>X</b>   	X     
IMPROPER EQUIPMENT SUPPORTS   (includes water diverters)	,		 	USE   C31 3000 1000 1400		===== 
Inspect for:	i	ì	i	İ		
EQH1 - Movement of support	D/P/R  D R	Ì	   <b>X</b>	X   X	X   X   X	X   X   X
EQM1 - The equipment is  bolted through the shingles  and the bolts appear not to  be sealed.			X   X	X   	X   X	X
M&R activities as required:	i	i	ĺ			
EQH1 - Repair damaged	D/P/R  D R 	l ,	X	x x	X X	X.
EQM1 - Caulk unflashed penetrations with elastometric sealant.	   D 		X	X	X	X
			1			

#### APPENDIX C:

## INSPECTION AND M&R CHECKLISTS FOR EXTERIOR CLOSURE

## General Notes on Structure

Structural Components

Failures occurring during the normal life expectancy of buildings and structures should be carefully investigated, and the fundamental defects corrected prior to superficial repair.

If the cause of the failure is not immediately discernible, or if the corrective measures are not straightforward or standard, consultation and advice should be obtained from qualified architects or structural engineers. Most of the defects listed for the structural components could result from a number of mechanisms; the cause and extent of deterioration may simply be unknown.

The architect or engineer should determine the cause of the deterioration and the strength of the existing structure and then provide recommendations on how to proceed. These recommendations may include:

- 1. To permit deterioration to continue
- 2. To take measures to preserve the structure in its present condition without any attempt to strengthen it
- 3. To strengthen the construction
- 4. To reconstruct or abandon the construction, if deterioration is exceptionally severe.

The decision should be rendered on the basis of safety, economics, and a prevance,

## Cracks

Before any attempt is made to repair a crack, an investigation should be undertaken to determine the cause of the crack. The following precautions should be observed:

- 1. Do not attempt to repair cracks as soon as they appear. Observe the cracks periodically over time to determine whether the crack is active or passive. Determine the cause of the crack and correct it.
- 2. Do not attempt to repair a fine crack by chiseling out a deep groove and repointing. Repair fine cracks by filling or bridging over with a cement-based wash or paint.
- 3. Do not caulk cracks above grade with light plastic or dark bituminous caulking compounds that will contrast with the wall finish. If such materials must be used, scal the caulking by coating with a shellac or aluminum paint, then paint to match the surrounding area.

#### Holes

Take immediate corrective measures if holes are of a size or depth that may cause substrate deterioration or permit water penetration.

# Concrete Masonry Walls and Retaining Walls

For bowing and bulging and out-of-plumb concrete masonry walls and retaining walls, note that general deviations from the vertical and horizontal in excess of 1/240 of the unsupported length, or 0.5 in. per 10 ft, are likely to be noticed and should be investigated by a qualified architect or structural engineer.

## General Notes on Painting

When corrosion is removed from a surface, that surface must receive touch-up paint.

Existing paint coatings may contain lead, which is a hazardous material. Special precautions must be taken when working with or around such coatings.

If pitting corrosion is present, remove corrosion, spot prime, and topcoat entire surface. If pitting corrosion continues, determine cause of corrosion and fix the condition before performing any further M&R.

#### Exterior Metal

## Preferred Maintenance:

Perform surface preparation of general corrosion covering 1 percent or more, and any pitted corrosion.

## Minimal Maintenance:

Perform surface preparation of general corrosion covering 3 percent or more, and any pitted corrosion.

## Exterior Concrete

## Freferred Maintenance:

Perform surface preparation of deteriorated coatings covering 3 percent or more of the surface.

## Minimal Maintenance:

Where noted, perform surface preparation of deteriorated coatings covering 10 percent or more of the surface.

<sup>\*</sup>U.S. standard units of measure are used in this report. A metric conversion table can be found on page 8.

## Exterior Wood

## Preferred Maintenance:

Where noted, perform surface preparation of deteriorated coatings covering 's percent or more of the surface.

## Minimal Maintenance:

Where noted, perform surface preparation of deteriorated coatings covering 7 percent or more of the surface.

# Exterior Concrete Masonry Unit

## Preferred Maintenance:

Perform surface preparation of deteriorated coatings covering 3 percent or more of the surface.

# Minimal Maintenance:

Perform surface preparation of deteriorated coating covering 10 percent or more of the surface.

## **Checklist Contents**

The exterior closure component consists of the architectural and structural elements of the building envelope, plus the exterior elements immediately adjacent to the building. Its subcomponents are Exterior Perimeter, Exterior Wall, Windows and Louvers, and Doors.

## Exterior Perimeter

Sidewalks, Stoops, & Steps
Finish Grade
Trees & Shrubs
Concrete Stairs & Retaining Walls
Steel Guardrails, Handrails, & Stairs
Wood Guardrails, Handrails, & Stairs
Metal Gretes
Caulking
Area Drains & Catch Basins
Vehicle Bumper Guards: Steel, Wood, & Concrete
Dock Bumpers
Exterior Signs
Security Fencing

# Exterior Wall

Concrete Surfaces
Cementitious Coating
Concrete Masonry Units
Brick Masonry Units
Exterior Ceramic Tile
Metal Cladding & Metal Panels

Vinyl Cladding Wrod Cladding

Lintels & Sills: Steel, Precast Concrete, & Reinforced Concrete Masonry Units

Miscellaneous Metal, Ladders, Security Grilles, Corner Guards, Flagpoles, Metal Fascia & Soffits,

Metal Canopies & Supports

Identifying Devices: Exterior Signs, Lettering, & Attachments

Gutters & Downspouts
Flashing & Counterflashing
Caulking

## Exterior Windows and Louvers

Glass & Glazing
Str al Windows
Aluminum Windows
Vinyl-Clad Wood Windows
Metal-Clad Wood Windows
Wood Windows
Window Hardware
Metal Louvers & Metal Crilles
Window Screens
Caulking

#### Exterior Doors

Hollow Metal Doors & Frames; Steel Doors & Frames
Metal Coiling Doors & Metal Sectional Overhead Doors
Sectional Overhead Doors: Wood Panels
Wood Doors & Frames
Steel & Glass Doors & Frames
Aluminum & Glass Doors & Frames
Screen Doors
Glass in Doors
Louvers in Doors
Door Hardware
Caulking

# GENERAL BUILDING TYPES

## EXTERIOR CLOSURE - EXTERIOR PERIMETER

NOTE:

D = Deactivation
P = Periodic
R = Reactivation

Pfr = Preferred Min = Minimal

= year = days yr

SIDEWALKS, STOOPS, & STEPS	Pfr	     Min	ļ	D>1yr	D<1yr	
Inspect for:	 	 	R<45d  ===== 	R<45d   ======	R>45d  =====	R>45d  ===== 
Cracks & holes	D/P/R	:	X	X	=====     X	
		R	X	X	X	X
Spalling & scaling	D/P/R		X	X	X	X
MAN AND AND AND AND AND AND AND AND AND A		R	X	X	X	i X
Uneven settlement	D/P/R	:	x	×	   <b>x</b>	i I X
		R	X	X	X	X
Tripping & slipping hazards	D/P/R	;    DR	X	X	X	X
the like and the disk live tied little has one goy long two but may be ver 440 feet upon to a son one year over over	.	D/P/R		X		X
Exposed reinforcing	D/P/R	R	X	X	x	X
Damaged expansion joints	D/P/R	R 	X 	) X 	X 	X 
***************************************	 =   =====	   <b></b>	=====   	   =====	   =====	  ====

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	M&R activities as required:					25 25 25 25	 	
	Repair cracks & holes	D/P/R	 	X	====     X	== = = = = =   	=====   	
		R	Ì			X	X I	
i		 	R	X	X	X   	X	1
	Replace damaged sections	D/P/R		х	x			
		R				l X	X	ĺ
	. 1888 ANN ANN ANN ANN ANN ANN ANN ANN ANN	 	R	X 	X 	X	X   	l
	Replace sections that cause			X	x	X	i x i	ĺ
	tripping hazards; clean off slipping hazards		ID R ID/P/R		l I X	X	   X	
	arranta nereina		D/ E/ K	! 		! 	^   	1
		D/P/R	į R	įх	X	X	X	1
	concrete; coat rebar, patch area	! !	! !	] 	 	l i		
		İ						
	Replace rebar; clean adjacent concrete, patch	D/P/R	R	X	ļ X	Į X	X	
	area	i		<u> </u>	! 	! 	! 	1
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	Repair or replace damaged expansion joints	D/P/R	R	X	I X	<b>)</b> X	X	 
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FINISH GRADE	Pfr	Min	i - :		D<1yr	D>1yr	
	[ 		K<45Q   ====	K<450	R>45d	K>45Q     #=#==	
Inspect for:						,   	
Slope towards building	D/P/R		X	X	x	X	
	 	D R		X	) X	x	
	D/P/R	•	X	X	X	X.	ļ
building	<u> </u>	D R		   X	<b>X</b>	X	
M&R activities as required:							
	D/P/R	•	X	X	X	X	ĺ
building	! !	D R		! ! <b>X</b>	<b>X</b> 	×	İ
l	D/P/R		X	X	X	X	
prevent accumulation at building	! !	D R D/P/R	,	! ! <b>x</b>	X	l ! X	
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1	1	ļ	D<1yr:	D>1yr	D<1yr	D>1yr	
TREES & SHRUBS	Pfr	Min			_	·	l
1	1	İ	R<45d	R<45d	R>45d	R>45d	
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Inspect for:		l				1	İ
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	ID/P/R		l X	X	X	X	ĺ
Itrees, branches, shrubs,		D R			X	ł	ĺ
or vegetative growth	1	D/P/R		X		X	ĺ
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M&R activities as required:	!					l	ĺ
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	D/P/R	•	l X	X	X	X	
shrub, & vegetative growth	1	D R			X		İ
in contact with building	ļ	D/P/R		Х		X	Į
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	I manage			***	***	***
CONCRETE STAIRS & RETAINING WALLS	Pfx	Min	D<1yr	D>1yr	D<1yr	D>1yr
	***********		R<45d	R<45d	R>45d	R>45d
Inspect for:						
Cracks & holes	D/P/R		X	X		
	R	R	X	х	X	X     X
Spalling & scaling	D/P/R	1.00	X	X		
	R.	R	X	X	X	X
Movement	D/P/R	•	X	X	X	X
		D R		X	X	x
Tripping & slipping	D/P/R		X	X	X	X
hazards		D R		X	X	Х
Exposed reinforcing	D/P/R	•	X I X	X	X	X
		ID R		х	X 	X
Damaged expansion joints	D/P/R		X	X	X	X
		ID R		<b>x</b>	X 	×
Clogged weep holes	D/P/R	-	X	X	X	X
	1	ID R ID/P/R		   X	X 	i X
. 美国民族的复数形式 15 mm	11 12 12 12 12	****	72 FE 23 252 252		======================================	

M&R activities as required:	: mc tar
R	- 1
Replace damaged sections   D/P/R   X   X   X   X   X   X   X   X   X	2 1
Replace sections that cause D/P/R	
Replace sections that cause D/P/R X X X X X X X X X X X X X X X X X X X	
tripping hazards; clean off   D R   X   X   Slipping hazards   D/P/R   X   X   X   X   Clean rebar & adjacent   D/P/R   X   X   X   X   X   Concrete; coat rebar,   D R   X   X   X   Patch area   D/P/R   X   X   X   X   Replace rebar; clean   D/P/R   X   X   X   Adjacent concrete, patch   D R   X   X   X   X   Adjacent concrete, patch   D R   X   X   X   X   X   Adjacent concrete, patch   D R   X   X   X   X   X   X   X   X   X	
Slipping hazards	<b>.</b>
concrete; coat rebar,   D R X   X   patch area   D/P/R   X   X   X   Replace rebar; clean   D/P/R   X   X   X   X   adjacent concrete, patch   D R X   X   X   X   X   X   X   X   X   X	<b>.</b>
Patch area   D/P/R   X   X   X   Replace rebar; clean   D/P/R   X   X   X   X   X   Adjacent concrete, patch   D R X   X   X   X   X   X   X   X   X   X	ζ
adjacent concrete, patch   D R X   X	<b>↓</b>
	<
	<b></b>
Repair or replace damaged   D/P/R   X   X   X   X	<b>.</b>
expansion joints   D R X   X   X   D/F/R   X   X	<b>c</b>
Consult with engineer for  D/P/R    X   X   X   X	 【
movement correction   D R X   X   procedure   D/P/F   X   X	<b>c</b>
Rod out clogged weep holes  D/P/R    X   X   X   X	 {
D R   X     X       X         X         X         X	ا د ا
Clean surfaces   R  R  X   X   X	 {

有异性的现在分词 医多种毒素 医多种性 医多种性 医多种性 医多种性 医多种性 医多种性 医多种性 医多种性				医骨足囊体	<b>米米等地</b>	TOM AND THE SAME SAME	
STEEL GUARDRAILS, HANDRAILS, & STAIRS	   Pfr	   Min	n<1yr∣	D>1.yr   	D<1yr	レ>1.yr	
			R<45d	R<45d	R>45d		1
Inspect for:					İ	i	
	D/P/R	1	X	X	]	l	
deformation	] JR	R	x	×	X	X  X	
Corrosion	D/P/R	1	•	X	X	X	
		D R		X	, x	X	
Staining & discoloration	D/P/R		X	X			!
	R	R	   X	X	X	X	
	D/P/R	: .	X	×	X	X	
sections & fasteners 		D R D/P/R	, ,,	X	X 	X	
Surface coat damage	D R				X	)	İ
	 	D/P/R 		<b>X</b>	<u> </u>	X	ĺ
医克斯克尔马拉斯基克斯氏氏征检查检查检验检验检验		***	記事業計画			#C #[ All Lie 75]	ı

表 医 医 医 新 新 新 新 新 新 新 新 新 新 新 二 年 在 新 和 和 和 和 和 和 和	-	#1 M M M M M M				和司法共正
M&R activities as required:						<b>\$2</b> \$2 \$2 \$2 \$2 \$2
Repair cracks, holes, dents, & deformation	D/P/R	-	i <b>x</b>     x	X X	   X   X	X   X
Remove corrosion	D/P/R	    D R  D/P/R	   X   X	X   X   X	X X	   X   X
Secure loose sections & fasteners	   D/P/R		   X   X	X	X   X	   X   X
Replace broken or missing sections & fasteners	D/P/R		   X   X	X   X	X	   X   X
Clean off surfaces stains & discoloration			   X 	X	X   X   X	X
Clean surfaces	R	R	   X	X	   X 	X
Prepare surface & paint	D R	   D R   D/P/R		     X	   X	X
## 1885 MAI SAN SAN SAN SAN SAN SAN SAN SAN SAN SAN	Manuscus and and		 	100 100 100 100 100 100 100 100 100 100	<b>***</b> ####	 

WOOD GUARDRAILS, HANDRAILS, & STAIRS	   Pfr 	mane     Min   lesses	D<1yr    R<45d	D>1yr    R<45d	D<1yr    R>45d	D>1yr     R>45d
Inspect for:	İ	i	j	į•	j	İ
1	D/P/R   		i x i X	X   X   X	X   X   X	X   X
Gouges	D/P/R	:	X X	X   X	X   X   X	X   X
Rot	D/P/R			X   X   X	X   X   X	X
Staining & discoloration	  D/P/R   R	-	X	X     X	   X   X	   X   X
Insect infestation	  D/P/R 	    D R  D/P/R		X   X   X	   X   X	   X   X
Fungal growth	•	     D R   D/P/R		X   X	X   X   X	X,   X
Warped sections	D/P/R   R	•	X   X	X   X	     X   X	X   X
Loose, broken, or missing sections & fasteners	1	     D R   D/P/R		X   X   X	   X   X	X   X
Surface coat damage	D R  D/P/R	•	X	     X	   X	     X
经限额股份 化甲基苯基苯基 经基础 医电影 化化铁铁铁铁铁铁铁铁铁铁铁铁铁铁铁铁铁铁铁铁铁铁铁铁铁铁铁铁铁铁铁铁铁铁铁		BERTS	***			

ace and apply and lease sout apply a	LE DA DE DE DE	THE SOME SHAPE SHEET IN THE	100 may 100 to 100	1 10 10 10 10 10 10 10 10 10 10 10 10 10	1 12 12 13 15 NO. 114	
M&R activities as required:		į	į	į	Ì	į
Seal cracks, splits, &   holes	D/P/R		i x i x	X   X   X	With Let be set   X   X	X 
Repair or replace gouged	D/P/R	•	X   X		X   X   X	X
Replace rotted sections	D/P/R		X		   X   X	************************************
Replace warped sections	D/P/R		   X 	   X   X	     X   X	X   X   X
Secura loose sections & fasteners	D/P/R		X	X   X   X	X   X   X	X   X   X
Replace broken or missing sections & fasteners	  D/P/R 		   X   X	   X   X	   X   X	   X   X
Eradicate insect	D/P/R		   X   X	   X   X	   X   X	   X   X
Clean off fungus growth	  D/P/R 		   X   X	X   X   X	   X   X	   X 
Clean off surface stains & discoloration	  D/P/R   R		X		     X	X     X
Clean surfaces	   R	R       R		X     X	X     X	X     X
		     D    D/P/R	X		X	X
5. 电复数保息性 医医支性神经 计数据 医红斑 医红斑 医红斑 经			mmu==	<b>=====</b>		**************************************

	1=====	1=====	<b>====</b>	l =====	=====	=====
METAL GRATES	Pfr	   Min	D<1yr	D>1yr	D<1yr	D>1yr
	=====	  ======				R>45d   =====
Inspect for:	=====	   =====	  =====	 	  =====	   =====
Cracks, dents, &  deformation	D/P/R	:	X	l X	i I x	   X
		R	X	X	i x	X
Staining & discoloration	D/P/R	:	X	X		
	R	R	! <b>x</b>	X	i X	X     X
Corrosion	D/P/R		X	X	X	   X
	1	D R D/P/R		   X	X 	   <b>x</b>
Loose, broken, or missing	D/P/R	•	X	X	X	   X
sections & fasteners		D R  D/P/R		   X	·X 	i !   <b>X</b>
Surface coat damage		  D R			   X	
	į.	D/P/R 	 	X 	] }	X
M&R activities as required:	i	=====		=====     =====	=====	
Repair cracks, dents, &  deformations	D/P/R	:	X	X		i i
	R	l R	i X	X	) X ! X	X     X
Remove corrosion	D/P/R	•	X	X		   X
 	•	D R		   X	l X	   X
Secure loose sections &	D/P/R	:	X	X	X	   X
fasteners 	1	D R  D/P/R		X	X 	
Replace broken or missing	D/P/R	<del></del>	}.	Х		   X
sections & fasteners		D R   D/P/R		X	X 	   X
Clean off surface stains	  D/P/R	<del></del>   	 X	 X		
& discoloration	R  	R	X	X i	X X	X   X
Prepare surface & paint	  D R					
•		D/P/R		x	·	x
祖后 计可能性 化二苯基苯甲基苯甲基苯甲基苯甲基苯甲基苯甲基苯甲基苯甲基苯甲基苯甲基苯甲基苯甲基苯甲	  ======		**====	====	======	=====

		****				
CAULKING	   Pfr	   Min	-	_		D>1yr
	 	 			R>45d   =====	R>45d
Inspect for:		 	ĺ	j	İ	į
Loose caulk	D/P/R	•	X	X	X     X	X
	!   	D/P/R		X		x
Missing caulk	D/P/R		X	X	X	X
,		D R		х	. A.	X
Eroded caulk	D/P/R		X	X	X	X
	:	ID R  D/P/R	•	X	X 	X
M&R activities as required:		=====	=====	=====		_ ====
Remove loose, eroded, or	=====   D/P/R	===== 	X	X	X	=====    .X
damaged caulk, clean	j · i · i	D R	X		X	i
surfaces, recaulk		D/P/R	 	X		X

AREA DRAINS   & CATCH BASINS	   Pfr 	İ	D<1yr    R<45d	D>1yr    R<45d	D<1yr    R>45d	D>1yr     R>45d
Inspect for:	<u> </u> ;		i İ	ĺ	=====	
Clogging debris	D/P/R 	Į.	X   X	=====   X     X	=====   X   X 	====     X
		    D R  D/P/R		   X   X	   X   X	   X     X
Cracks & deformation	D/P/R		X	   X 	x	
  Loose sections	     R	R   R   R		X     X	X     X	X        X
Loose, broken, or missing sections	    D/P/R 	D R	•	     X 	   X   X	      X
	i	D/P/R   =====  		X  ===== 		X
	D/P/R	1 .	X X	X     X	X	X     X     X
Rout out drain	•	 		   X   X	   X   X	   X
Repair cracks &    deformation	  D/P/R   R	 	X	X X	     X   X	
Secure loose sections	   R			x	X     X	X        X
Replace broken or missing sections	     D/P/R  	     D R   D/P/R	x	X   X   X	ж х	X
	   <b>==</b> ==	E====	=====		====	X

化氯甲基苯基苯基甲基甲基甲基甲基甲基苯甲基苯甲基苯甲基苯甲基苯甲基甲基甲基甲基甲基	107.30 THE 187.10	100 m m m m m	****	***		
VEHICLE BUMPER GUARDS: STEEL, WOOD, & CONCRETE	i <sub> </sub> Pfr	İ		D>1yr	•	
翻氯的 网络哈戴斯特斯斯 化甲基苯甲基甲二甲基甲甲基甲甲			•	R<45d		R>45d
Inspect for:	i	i				İ
Cracks, dents, &	=====  D/P/R	1	=====   X	:=====   X	****	== ==   
deformation	l R	l R	   X	x	X X	X     X
Corrosion	   D/P/R   R	•	X	X	     X	
		R	x	x	x	x
Rot	D/P/R		X	X		Bri Chi (0) (0) (1)
	R	l I R	   X	x	X	X
Spalling & scaling	D/P/R	:	X	×	     X	X
		R	X	×	â	X
Loose, broken, or missing sections & fasteners	D/P/R   	R   R 	X   X 	X	X   X 	X   X
	  D R  D/P/R	  D R  D/P/R		     X	   X 	     X
M&R activities as required:	İ	Ì	į		İ	  ===== 
Repair cracks, dents, &	=====  D/P/R		=====   X	=====   X	==== 	===== 
deformation	l R	i I R	   X	×	X	i x i x
Remove corrosion	  D/P/R	 	   X		 	 
	R 	Į Į R	   X	X	X	X X
Secure loose sections & fasteners	D/P/R   	   R 	   X 	X		   X 
Replace broken or missing sections & fasteners	  D/P/R 	R	'X	 Х	X	   X
	D R	D R		 x	x	x
医复异异角性抗抗性性结合性性性性性性性性性性	   =====	====		=====		****

他们的现在分词	****	****	1			
DOCK BUMPERS	   Pfr	   Min	1			D>1yr      R>45d
			ロピトンス	K<450   =====	K/430	K2450.  
Inspect for:		İ		<b>i</b> :		
· ·	D/P/R	,	ı	X   	X	X
Surface coat damage	   D R   D/P/R				X	X
M&R activities as required:						
Remove wood/steel bumpers	ם ا	ם		X		X I
Reinstall wood/steel  bumpers	R	R		X	take ipag onya dapa ipag	x     x
Secure loose sections &	D/P/R R		X   X	   X   X	х х	X   X
Replace rotted, broken, or   missing sections &   fasteners	D/P/R		X	   X   X	х х	 X X
	D R D/P/R			х	X	x
	====	====				====

	==KEE	====				
i ·	ĺ	ļ	D<1yr	D>1yr	D<1yr	D>1yr
EXTERIOR SIGNS	Pfr	Min				
Î.	1		R<45d	R<45d	R>45d	R>45d
	=====	====	=====	=====		
Inspect for:	1		İ	l		
	=====	====	=====	====	=====	=====
Loose, broken, missing, or	D/P/R		X	X		
damaged signs	l R				X	X
	1	l R	X	X	X	X
	SEEEE		.: TEE			*====
M&R activities as required:	1		1	l	1	
		=====		=====	***	
Repair or replace signs	D/P/R		X	X		
1	R			1	Х	X
1		R	X	X	X	X
			l — — — — —	l	I	

			=====	====		****
	1	ĺ	D<1yr	D>1yr	D<1yr	D>1yr
SECURITY FENCING	Pfr	! Min	 			   ***
	 	l Imperation	K<45a	R<45d	R>45d	
Inspect for:					<del></del>	<del></del>
	  =====	  =====		****		=====
Holes & penetrations	D/P/R	İ	X.	Х	Х	Х
	•	ID R			X	
	 	D/P/R	 	X		X
Continuity of barbed wire	D/P/R	 	X	X	X	   X
or tape	j	D R	X		3	i
	!	D/P/R		X	l	X
Stability of vertical	  D/P/R	~~~~	   X		~~~~~	
supports		i IDRI		^	X I X	X
	•	D/P/R		X		x
		====	=====		*******	
M&R activities as required:	:					
Replace damaged fence area		====	<b>=</b> = = = = .	X		=====     X
or barbed wire/tape	<i>D/E/K</i> 	D R			X	
	i	D/P/R		x		x
Reset vertical support	D/P/R		X.	X	X	X
<u> </u>		D R	X	x	X	
<b>新新加利森中省省西部沿海及省区区域中</b>	****	=====     D	wirms:			∣ ∧ ∣ ∣≝≕≊≅≂Ì

## GENERAL BUILDING TYPES

# EXTERIOR CLOSURE - EXTERIOR WALL

NOTE:

D = Deactivation

P = Periodic

R = Reactivation

Pfr = Preferred Min = Minimal yr = year

d = days

					•	****
CONCRETE SURFACES	Pfr	Min	i	i -	į -	D>1yr  
東京河西南部市市西京市西京市西京市市市市市市市市市市市市市市市市市市市市市市市市市市市		*E====	R<45d	R<45d	R>45d	R>45d
Inspect for:			 		-	
Cracks & holes	D/P/R	•	i x	X	X	Х
		D/P/R		x	^	x
Chips & gouges	D/F/R	•	X	X		
	R 	l I R	   X	X	X	X     X
Spalling & scaling	D/P/R			X		
	R 	R	X	x	X X	X     X
Staining & discoloration	D/P/R			X		
	l R	R	X	X	X	X     X
Efflorescence; locate source of water penetration	   D/P/R 	   R 	X	X	X	   X   
Exposed reinforcing	D/P/R		   X	X		X
		D R D/P/R		X	X	
Damaged expansion joints	D/P/R		   X	X		X
		D R		x	X	X
	D R D/P/R		x	x	X	 X
医克耳氏试验检检验 医皮肤 化苯基苯甲基苯基苯甲基苯甲基苯甲基苯甲基苯甲基苯甲基甲基甲基甲基甲基甲基甲基甲基	   =====	=====	=====	##### <b> </b>		<b>三米田田</b> 田

M&R activities as required:	=====			<b>医动脉流管</b>			
mak gotivities as recollico:						***	i
Repair cracks & holes	D/P/R	i ID R	X	x	X X	X	
		D/P/R	 	X 		X 	
Repair chips & gouges	D/P/R		i x	X	i I X	X	
		R	Х	X	X	X	
Repair spalled or scaled	D/P/R	:	X	X			1
area	R	R	!   X	X	X   X	X   X	
Clean rebar & adjacent	D/P/R	*	I X	X	X	X	!
concrete; coat rebar, patch area		D R D/P/R		X	<b>X</b> ! .	X	
Replace rebar; clean	D/P/R	•	X	X	X	X	
adjacent concrete, patch area		ID R ID/P/R		i x	i X !	ļ x	
Repair expansion joints	D/P/R	•	X		X	X	
ή	<u> </u>	D R D/P/R		l ! X	X 	X	<u> </u>
Clean off surface stains	D/P/R	•	X	X			
& discoloration	R	   R	   <b>X</b>	   <b>X</b>	X   X	X   X	
Clean off efflorescence	  D/P/R	   R	   X	   X	   X		1
	 	 	 	<u> </u> 	<b> </b> 	 	
Prepare & paint surfaces	  D R	   D	   X				
•	D/P/R			X	33	X	 
	100 200 200 200 200 200 200 200 200 200	======			merma		l

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CEMENTITIOUS COATING	Pfr	Min	-	D>1yr     R<45d			
		  enses	:	NC 40C	•		1
Inspect for:	}		   	·		     =====	   
Cracks & holes	D/P/R	,	X	X	X	X	
		D/P/R		X		X	
Chips & gouges	D/P/R	:	X	x	l X	. <b>X</b>	
No. 400 am top 300 =-1 500 501 and first day by the day 100 500 500 500 per are see day and see and see and see	 	R	X	x	X	X	ĺ
Spalling & scaling	D/P/R	•	X	X	   X	X	
 		R	X	X	X	X	1
Staining & discoloration	D/P/R		). <b>X</b>	X	i I x	   X	İ
		R	X .	X	X	X	į
Efflorescence; locate  source of water  penetration	D/P/R	R	X   	X	X	X	.
Damaged expansion joints	D/P/R	l D R	X   X	X	X	X	
 	! !	D/P/R		X	<b>^</b> 	X	
Surface coat damage	D R		X   X	X	X	X	
	=====		=====		====================================	-	1

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MGR activities as required:					<b>***</b>	
Repair cracks & holes	D/P/R	D R	,	x x	X X	x x
Repair chips & gouges	D/P/R		X X	X	X X	X
Repair spalled or scaled area	D/P/R		X	X   X	X	X X
Repair expansion joints	   D/P/R   	D R		X   X	X X	X
Clean off surface stains & discoloration	D/P/R   R		X	X     X	X   X	X   X
Clean off efflorescence	D/P/R	R	X   X	X	X	X 
Prepare & paint surfaces	D R	D R	į	X	X	     X
	} ======		****	=#===		

*************************************						=====   D>1yr
CONCRETE MASONRY UNITS	Pfr	Min	_		•	
Inspect for:	i	j	İ	ĺ		!
Cracks & holes	D/P/R	IDR	X   X	X	X   X	X
		D/P/R		<b>X</b> .	**	x
الله الله الله الله الله الله الله الله	<u> </u>					
Chips & gouges	D/P/R		. <b>X</b> , .	<b>X</b>	•	
	R	l R	X	X	X	X.    X.
Broken or missing units	D/P/R		! X	X	X	1 X
		D R	•	, 	X	j j
	ļ	D/P/R	!	l X	!	X
Cracked, broken, loose, or	D/P/R					1    X
cracked, broken, 100se, or crumbling mortar		D R	•	^	İÂ	^
	i	D/P/R		j x	i	j x i
	15/5/5					
Missing mortar	D/P/R	i IDR	I X I X	X	) X I X	X
		D/P/R		i x	i	i x i
Bowing or bulging*	D/P/R	í IDR	X   X	į X	l X	X
[ ]	1	D/P/R		X		ı x
				i		
Out of plumb*	D/P/R		X	X	X	į X į
<b> </b> 	•	D R		l I X	X	   X
Staining & discoloration	D/P/R		X	X	Ì	į į
	R	•	1/2		l X	( X
	 	R	X	X	X	X
Efflorescence; locate	D/P/R	R	l x	X	X	x
source of water	İ	İ	İ	1	j	i, i
penetration	1	!	ļ		1	[
Damaged expansion joints	D/P/R		X		X	   X
		D R		^	i â	^   
	İ	D/P/R	İ	X	ĺ	i x i

NOTE: The items marked with an asterisk (\*) can develop into a serious structural problem. If the cause of the defect or local failure is not immediately discernible or if the corrective measures are not straightforward, consultation and advice should be obtained from a qualified architect or structural engineer.

	I marketine	1	l	I	المستستا المستشارة	
Clogged weep holes		  D R  D/P/R		: X     X	X X	X
Surface coat damage	D R		   X 	     X	   X 	
M&R activities as required:	100 No. 100 No. 100	2000 Not 1004 1005 100	man tine can been man			Mar 20 fee an Mr.
Repair cracks & holes	D/P/R	<b></b>    D R  D/P/R		X   X   X		
Repair chips & gouges	  D/P/R   R		X   X	X   X   X	   X	X   X
Replace broken or missing units	D/P/R	    D R  D/P/R		х х	   X	X
Remove cracked, broken, loose, or crumbling mortar; tuckpoint joints	  D/P/R 	R   R	X	х	   X 	X
Seal cracked, broken, or loose mortar with caulk		  D  D/P 	   X 	х	X	x
Tuckpoint mortar gaps	  D/P/R 		   X 	Х	   X   	X
Caulk in mortar gaps		  D  D/P 	   X 	X	X	x
ست خيب بيده سني هن ديلة سنة راج بهه عنه سيد سيم بيما بيدا منه الله مثلاً عند فته نشد هذ هذا لله سال						

Tie wall back to main	  D/P/R	D R		   X 	   X   X	   X 
Reconstruct failed area	    D/P/R	D/P/R      D R		X     X 	     X   X	X      X 
Repair damaged expansion	    D/P/R		  X	<del>-</del>	     x	X     X
joints 	-	D R D/P/R		   X 	X	   X 
Clean-out weep holes	D/P/R   	  D R  D/P/R		X     X	X X !	X
Clean off surface stains & discoloration	D/P/R	:	X   X   X	X   X   X	X   X	X   X   X
Clean off efflorescence	D/P/R			   X 	i I X I	X
Prepare & paint surfaces	D R		X		     X	      X
机械 计对数 计数据 医红红红红斑 化苯苯基甲二苯甲甲二苯甲基		   No del Milionality	M=====	   ====::	 	

医性性性 医皮肤 医皮肤 医皮肤 医皮肤 医皮肤 医皮肤 医皮肤 医皮肤 医皮肤 医皮肤	THE SAME EAST SAME SAME		<b>第12章 建</b>			
BRICK MASONRY UNITS	Pfr	   Min	D<1yr	D>1yr	D<1yr	D>1yr
BRICK MASONAL CHILS	   ETT	MILL	R<45d	R<45d.	  R>45d	  R>45d
	100 ME 100 MH 100		2000 1000 2000 1001 1001	****	UNIC 1200 MART 995 MAC	*********
Inspect for:	  ===:::::::::::::::::::::::::::::::::	   =====			3 11 11 11 11 11 11 11 11 11 11 11 11 11	 
Cracks & holes	D/P/R	i	X	Х	i x	X
		D R  D/P/R		l I X	X 	   <b>X</b>
	-					
Chips & gouges	D/P/R		X	X	X	X
	į	R	X	х	x	X
Broken or missing units	D/P/R		X			
		D R	X		X	
	 	D/P/R		X	 	X
Spalling & scaling	D/P/R		x	x		
	l R	R	X	X	X   X	X   X
	1					
Cracked, broken, loose, or crumbling mortar	D/P/R	D R	X X	X	X	X 
	İ	D/P/R	j	×	j	į x
Missing mortar	D/P/R	 	X	X		X
-		D R			λ	
الله الله الله الله الله الله الله الله		D/P/R		X	 	X
Bowing or bulging*	D/P/R		х	×	x	X
		D R   D/P/R		 ! <b>X</b>	X	   X
Out of plumb*	D/P/R	l l ID R	X   X	×	X   X	X
	•	D/P/R		х		Х
Staining & discoluration	D/P/R	 		X		) ————— 
	R				х	x
	 	R	X	X	X	X
	D/P/R	R	Х	X	X	X
source of water penetration	 					

	1	1 1				
Damaged expansion joints	D/P/R	  D R  D/P/R		X X	X X	X
Control joints	D/P/R	I ID R	X	) X	X   X	X
		D/P/R	 	X	 	X
Clogged weep holes	D/P/R	•	X   X	X	X   X	X
		D R	j	   X		x
M&R activities as required:	İ		=====	== == ==   		= 2 H E H
Repair cracks & holes	=====  D/P/R	1	=====   X	=====   X	X	=====     X
· 	] 	D R  D/P/R		   X	<b>X</b> 	   <b>X</b>
Repair chips & gouges	  D/P/R		   X	   X		 
	l R	R	   <b>X</b>	l X	X	X     X
Replace broken or missing	  D/P/R			   X	   X	   X
units		D R	į X	     X	X	i I X I
						~ ~ -
Repair spalled or scaled larea	D/P/R   R	İ	X 	X	X	X
 		R	X 	X 	X 	X   
Remove cracked, broken, lloose, or crumbling mortar; tuckpoint joints	D/P/R   	R	X I	X   	X   	<b>X</b>
Seal cracked, broken, or		   D				 
loose mortar with caulk	1	D/P   	<b>[</b>	! <b>X</b>		X   
Tuckpoint mortar gaps	  D/P/R	   R	X	X	   X	X
<u> </u> 	 	 		 		<b> </b> 
Caulk in mortar gaps	 	<b></b>			   X	
		D/P	i 	Х		x
Tie wall back to main	  D/P/R	,    	   X			 
structure	ļ	D R		ļ į	x	X
		D/P/R  				X   

医国际系数性系统系统 化乙基苯甲苯酚 计可差别 医神经性	====================================	·     ======				 
Clean off efflorescence	D/P/R	R	x	X	х	X
& discoloration	R   	   R 	X	   X	X	X   X
	D/P/R	!	X	X		
Clean control joints	D/P/R	  D R  D/P/R		X	X X	X
Clean-out weep holes	D/P/R	  D R  D/P/R		X	X X	x x
Repair damaged expansion joints	D/P/R   	  D R  D/P/R		X	X	X
Reconstruct failed area	D/P/R	  D R  D/P/R		X	X	x x

· · · · · · · · · · · · · · · · · · ·			====		====	<b>英国教育</b> 2
	55			D>1yr	D<1yr	D>1yr
EXTERIOR CERAMIC TILE	Pfr	Min		   R<45d	  R>45d	R>45d
   多名目的复数形式和自己的自己的自己的自己的非常的的	25828	  =====				
Inspect for:	į	į	į :			
Cracks, chips, holes, &	= = = = = =     D/P/R	ı	===== :   X	=====     X		
cracks, chips, holes, a  gouges	I R		, A	. ^	i I X	X
	i	R	x	x	Ϊχ	X
Staining & discoloration	  D/P/R			   X		
staining a discoloration	R	:	) A	^	x	X
	1	R	x	х	X	X
Loose, broken, or missing	D/P/R	 				X
tiles		D R			i x	
	İ	D/P/R	İ	X		X
Loose or missing grout	D/P/R				X	X
	1	D R	X	i	įχ	
	•	D/P/R	•	X	!	=======   X
M&R activities as required:	m====	===== 	_ =====	 	===== 	=======
	=====	=====	=====	_=====		2222C
· • · · · · · · · · · · · · · · · · · ·	D/P/R		X	X		ļ 
holes, & gouges	R	l IR	   X	l i X	l X l X	X   X
Grout-in loose tiles	D/P/R	!	X	X	l X	i x
		ID R ID/P/R		l I X	į x	l I X
Replace broken or missing			X	ļ X	X	X
tiles	•	ID R ID/P/R	1	l I X	X	! i <b>X</b>
Remove loose grout, regrout			i x	į x	į x	X
joints	•	D R  D/P/R		   X	X	   <b>X</b>
			 	^ 	 	, , 
	D/P/R	•	X	×	İ	İ
& discoloration	į R	!		   <b>X</b>	l X I X	l X
		R  =====			X  =====	X
	•	• .				

				*****		
METAL CLADDING	   Pfr	•	D<1yr	D>1yr	D<1yr	D>1yr
METAL PANELS	į –	i		R<45d	R>45d	
Inspect for:	İ	i	j	İ	İ	İ
Cracks, holes, dents, & gouges	D/P/R	i ID R	X X	i x	X   X	i x
		D/P/R 		X 	 	X 
Staining & discoloration	D/P/R   R	:	X     X	X     X	   X   X	   X   X
Corrosion	D/P/R	D R		X     X	X   X 	X     X
Deformed sections	  D/P/R		i	   X	 	 
20202	R		į	x	- x   x	x X
Loose, broken, or missing sections & fasteners	D/P/R	     D R	   X   X		   X   X	
a rasteners		D/P/R		X		x
Surface coat damage	•	D R		X	X	X
M&R activities as required:	•	   ====== 	  ===== 	  ====== 	   = = = = = 	=====
<b>计算的过去式和过去分词 医阿拉伯氏征 医克里斯氏管 医红红红红红红红红红红红红红红红红红红红红红红红红红红红红红红红红红红红红</b>			  =====	=====	  =====	  =====
Patch small cracks & holes; replace sections with large	1	D R		X 	X   X	X 
crack: & holes		D/P/R	 	X 	 	X 
Replace sections with dents or gouges	D/P/R		X	j X	i I X	i I X
		R	X	X	X	i x
Remove corrosion	D/P/R	•	X	X	X	X
	•	D R		X	) X !	   X
Replace deformed sections	D/P/R		x	X	 	
	l R		X	X	X	X   X

Secure loose sections &   fasteners	•	D R		   X	   X   X	X
Replace broken or missing	    D/P/R	D/P/R 	     X	X     X	     X	X     X
sections & fasteners	]	D R	X	×	i x	x
Clean off surface stains	ID/P/R	•	X	X	i 1 X	
		R	X	X	X	X
Prepare & paint surfaces	D R	D R		х	х	x
表示英名称的现在分词 计可引起 计比较级 化化氢氢化氢氢	   ======			***	がたりがち	 

-				***	~~~ <b>*</b>	
				D>1yr	D<1yr	D>1yr
VINYL CLADDING	Pfr		•	   D<15d	   D > 45 d	  R>45d
	=====					
Inspect for:	İ	į	į	į	İ	i i
Cracks & holes	D/P/R	•	=====   X	=====	======   X	=====    X
Clacks & Moles	D/E/R	D R		^	i X	,
!		D/P/R	İ	X	İ	i x i
Staining & discoloration	D/P/R					
	R	•	<b>.</b> .		l x	i x i
<u> </u>	ļ	R	l X	X	X	Х
Deformed sections	D/P/R	 				 }
	R	:	1	"	Х	l x l
		R	X	X	ļΧ	X
Loose, broken, or missing	D/P/R		X	X	X	   X
sections & fasteners		D R	i x		Х	, <u>i</u>
		D/P/R	•	X	  =====	X
M&R activities as required:					=====	DEME:
	=====		•	•	=====	
Patch small cracks & holes;  replace sections with large	D/P/R	l IDRI	X     X	X	X   X	X
cracks & holes		D/P/R	,	Х	^	x
Replace deformed sections	D/P/R   R		X	X	X	
 		R	х	х	x	x
Secure loose sections &	D/P/R	 	X	X	   X	X
fasteners	•	D R			X	· '
 	 	D/P/R	 	X	 	X
	D/P/R		X	X	X	X
sections & fasteners	•	D R			X	İ
	 	D/P/R	 	X	 	X
Clean off surface stains	D/P/R	i	x	x	·	
& discoloration	R	·	·	· .	X	X
福 电邻基氯硫化抗聚胺 马凯斯特 对红铁比较低级的自身内容较多	=====	R   ====	X    =====	X	X	X

			ensas	=====		-	ı
1	i			D>1yr	D<1yr	D>1yr	l
WOOD CLADDING	Pfr			  R<45d	   R>45d	R>45d	ĺ
							ĺ
Inspect for:			 		 	  =====	
-	D/P/R		X	X	X	X	
1		D K		1	X		ĺ
المن المال		D/P/R	Ī	X	 	X 	
Gouges	D/P/R	ì	X	X		İ	İ
1	l R	   R	l I X	   <b>X</b>	I X I X	X I X	
			^ 	^ 	^ 	^ 	ŀ
Rot	D/P/R	•	į X	X	X	<b>X</b>	į
1	•	D R  D/P/R		   <b>X</b>	X	X	ŀ
			1		i		ļ
Staining & discoloration	D/P/R   R		X	X	   <b>X</b>	   X	
		   R	x	X	Î	x	
Insect infestation	  D/P/R						
Insect Intestation		I ID R	•	<b>X</b>	l X l X	) X 	
1	į	D/P/R		X	į	x	İ
Fungal growth	D/P/R	 		X	   X	   X	l
1	į	D R	Х		i ŝ		
	 	D/P/R		X		X	1
Warped sections	D/P/R		X	X			
1	R	•			Х	Х	ĺ
	 	R  	X	X	X	X	1
Loose, broken, or missing			х	x	x	х	ĺ
sections & fasteners	•	D R   D/P/R			X	   X	1
				^   			1
· · · · · · · · · · · · · · · · · · ·	D R	•	X		X	,	ļ
1	D/P/R 	DR 		X	 	X	İ
12   15   15   15   15   15   15   15		=====	=====				ı

拉克拉斯斯斯拉斯斯尔 医克里氏 医克里氏 计算机 计算机 化苯基苯基			*****	****	25522	e anns
M&R activities as required:	į		 	•	<u> </u>	
Seal cracks, splits, &	D/P/R		X	<b>***</b> *********************************	X   X	======    X
holes		D R	X	, 	i x	
		D/P/R	<u> </u>	X	1	X
Repair or replace gouged	D/P/R				 	
areas	R	•	j	i	i x	x
		R	X	X	X	X
Replace rotted sections	D/P/R		X	X	ĺΧ	X
_	,	ID R			i x	
		D/P/R	! 	X	 	X
Replace warped sections	D/P/R	i	×	x	i	
	R	•	•		l X	X
الله شي زالة الكار يوبا الله الجار بمن شعد بعبار إنها الله في الله بها الله الله الله عليه عنه يهما إنها أنها	 	R	X 	X	X 	) X
Secure loose sections &	D/P/R	•	i x	i x	X	i x
fasteners	1	D R  D/P/R		   X	X	   X
من تسر بنية تنت بينة نشاة فصد أهما أهما أهما أهما أيسا فيدة فقدة أهما حسد نظاة بيور حساة بليور بعد مثلة ليزن تقاة			 			^ 
Replace broken or missing	D/P/R	1	X	X	X	X
sections & fasteners	1	D R  D/P/R		l l X	X	l IX.
خود میں میں سے سے سے سے سے سے سے اس ایمان کیٹا کیٹا کیٹا کیٹا ہوں جین کیٹا گئی سے ایمان کیٹا کیٹا کیٹا کیٹا کی			' 			
Eradicate insect	D/P/R		l X	X	l X	ļ X
infestation		D R  D/P/R		   X	X	l I X
MI gas rim may day may day som gas may som qas may som qas may one qas qas qas may day gas may day gas may day					İ	
Clean off fungus growth	D/P/R	•	l X	X	•	
	   <b></b>	! ! R	)   X	X	l X l X	X   X
	j	j		i	i	
Clean off surfaces stains & discoloration	D/P/R   R	•	) X	X	   X	
« «130010% «C10!!	~	R	X	X	X	X   X
Prepare & paint surfaces	D R	•	X	l I X	X	   X
				, <u>^</u>	<u>'</u>	^
<b>我们就是我们的现在分词的现在分词的现在分词是是是我们的</b>			****	***=	=====	=====

7. 型型运动 医皮肤性 医性性性 医性性 医甲基苯甲基苯酚 化甲基苯酚		2222				
LINTELS & SILLS: STEEL, PRECAST CONCRETE, & REINFORCED CMU	1		 R<45d	D>1yr     R<45d	  R>45d	R>45d
Inspect for:	İ	į		İ	İ	İ
Corrosion	D/P/R		X   X		=====     X   X	X     X
Cracks, chips, holes, & gouges	•	    D R  D/P/R		   X   X	X   X   X	X     X     X
Surface coat damage		D R  D/P/R		   X 	X   X	
Sagging, displacement or misalignment	  D/P/R   	D R	j	X   X	X   X	   X
M&R activities as required:	Ì	İ	İ	=====	i	
Remove minor corrosion	D/P/R		X	X X	X X	X     X
Major corrosion, replace member	  D/P/R   	    D R  D/P/R		   X   X		
Repair or replace members with cracks, chips, holes, or gouges	  D/P/R 	    D R  D/P/R		   X   X	X   X   X	   X     X
	  D/P/R 		   X   X	   X   X	   X   X	   X     X
Prepare & paint surfaces		D	   X		   X 	   X
医眼球性 医电阻性 医自己 化自己 经经济 化二氯化甲基苯甲基			  =====	=====	   = # = = =	  =====

MISCELLANEOUS METAL,	===== 	<b>===</b> ===	====	= = = = 	245C	#####	
LADDERS, SECURITY GRILLES, CORNER GUARDS, FLAGPOLES,	   Pfr	   Min		1		D>1yr	
METAL FASCIA & SOFFITS,   METAL CANOPIES & SUPPORTS			İ	R<45d		i i	
Inspect for:	1	<b>i</b> i	; ]				
Cracks, holes, dents, &	D/P/R	i i	×	X	Х	X	
gouges		D R		x	Х	x	
Staining & discoloration	D/P/R		X	Х			
 	R	R	X	х	X	X     X	
Corrosion	D/P/R	l D R	X	X	X	X	
1	   	D/P/R		X	X	х	
Deformed sections	D/P/R   R	-	X	X	X		; 1
		R	X .	   X 	X	X	
Misalignment; detached  sections	D/P/R	    D R	X	X	X	X	i
	•	D/P/R	,	X		X	 
Loose, broken, or missing	D/P/R	l ID R	X   X	X	X	X	
	•	D/P/R		X	, A	X	
		D R		X	X		i
	   =====	   ====	  -====	=====	=====	====	

M&R activities as required:	!					
Patch small cracks & holes; replace sections with large	D/P/R 	l  DR	X   X	X   	X   X	=====     X
cracks & holes	 	D/P/R  	 	X 	   <b></b>	
Replace sections with dents or gouges	D/P/R	ĺ	X	X	i I X	   X
	! 	R	X	X 	X	X   
Remove corrosion	D/P/R	D R	,	X	X	<b>X</b>
		D/P/R	 	X 	 	X   
Replace deformed sections	D/P/R	1	x	х	į	
	R 	   R	}   X 	   X	X   X	X   X
Align & attach sections	D/P/R	•	X	X	X	X
	 	D R		   X	X 	,   X
	D/P/R	•	X	X	X	X
fasteners	•	D R		   X 	X 	   X
Replace broken or missing			X	X	X	X
sections & fasteners		D R	•	i x	X 	X
Clean off surface stains	D/P/R		X	X		
& discoloration	R	l I R	   X	   X	X   X	X   X
Prepare & paint surfaces		  D R	•		X	
		D/P/R 		X   		X 
	1			1	I	1

	=====		1	1			
IDENTIFYING DEVICES:  EXTERIOR SIGNS, LETTERING,	   Pfr	   Min	-	i -	D<1yr  	•	ĺ
ATTACHMENTS	   nce==	 	R<45d		R>45d	,	l
Inspect for:		,     =====	   	'   	   	     wasse	
Cracks, chips, holes,	D/P/R	į	X	X			
dents, & gouges 	R 	   R	   X	   X	X   X	X   X	
Loose, broken, or missing sections & fasteners	  D/P/R		   X		   X	   X	
	 	D R  D/P/R		   X	<b>X</b> 	X	
former transmission	  D R				x		
	D/P/R 	D/P/R 		X 	<b> </b> 	X   	1
M&R activities as required:		=====	=====	====			1
Secure loose sections &	====  D/P/R	====	==:===   X	=====   X	X X	=====   X	
fasteners	 	D R		X	X	X	İ
	  D/P/R	<b></b>   	   X	   X	   X	   X	
or missing sections &   fasteners	 	D R		X	X	X	
	   D R				   X		
 	D/P/R 	D/P/R  	<b> </b> 	X   	<b> </b> 	X 	l
	====		====	====	====	=====	١

14 15 15 15 16 16 16 16 16 16 16 16 16 16 16 16 16	=====	=====	=====			
	İ ,		D<1yr	D>1yr	D<1yr	D>1yr
GUTTERS & DOWNSPOUTS	Pfr 	Min 	•	•	  R>45d	•
Inspect for:	İ	<b>===</b> ==     <b>===</b> ==	=====     =====	İ	= = = = = = = = = = = = = = = = = = =	İ
Clogged gutter or downspout	D/P/R	ı	i x	X 	X   X	X   X
	İ	D/P/R		X		X
Secured to building	D/P/R	•	X	X	X	X
•		D R D/P/R		   X	X 	   X
Water tight	D/P/R	•	X		X	X
		D R D/P/R		l I X	X 	l I X
Corrosion	D/P/R		X	   X		
	1	ID R  D/P/R		   X	<b>X</b> 	   X
Stains & discoloration	D/P/R	•			<b></b> 	 
	R	l I R	l X	   X	X   X	X X
Broken or missing sections	  D/P/R		   X	   X	   X	   X
& fasteners	•	D R  D/P/R	•	   X	<b>X</b> 	   X
Surface coat damage	  D/P/R			   X	   X	   X
		D R  D/P/R	•	l I X	X 	   <b>X</b>
=======================================	:	=====	•	  =====	,  =====	,  ======

M&R activities as required:	İ	=====       =====	İ			=====
1	=====   D/P/R   		X X	X   X	=====   X   X	x     x
Secure gutter and downspout   to building	   D/P/R   	  D R  D/P/R	,	X   X   X	X   X   X	   X     X
Adjust to make water tight	  D/P/R   	    D R  D/P/R	,	   X     X	   X   X	   X     X
Remove corrosion	  D/P/R   	    D R  D/P/R	,	<del></del> -   X   X	   X   X	   X     X
Replace broken or missing	  D/P/R   	    D R  D/P/R		   X   X	   X   X	   X     X
Clean off surface stains & discoloration	  D/P/R   R		   X   X	X   X	   X   X	   X     X
Prepare surfaces & paint	   D/P/R     	D R			X   X   X	X   X   X

			=====	LEEE E	****	****
İ	 		D<1yr	D>1yr	D<1yr	D>1yr
FLASHING & COUNTERFLASHING	Pfr	n.tM	   D2453	   D2154	   B>45d	  R>45d
 	 	   =====			======	
Inspect for:	,   			   desaud		 
1 1	D/P/R	1	X	X	X	
dents, & gouges	İ	D R			i x	İ
!	Į.	D/P/R	!	X	ļ	X
Misaligned sections	D/P/R					   X
Misarighed sections		D R			X	
İ	į	D/P/R	ĺ	X	ĺ	X
I to a second and				   X		   X
Loose, broken, or missing    sections & fasteners	ID/P/R	I ID R	) X   X	! A.	l Χ ⊢ Χ	]
	i	D/P/R		x	1	i x
	i .	====	www.	=====	=====	=====
M&R activities as required:	 	 	1		 	
Repair cracks, chips, holes	ID/P/R	1		X	X	X
dents, & gouges		D R	X	i	X	<u> </u>
	ļ	D/P/R	ļ	l X	ļ.	X
Secure loose sections &	D/P/R		   X			;    X
fasteners		D R			i x	^
İ	į	D/P/R	j	j x	İ	i x
	15/5/5					
Replace broken or missing	10/4/K	l ID R	I X I X	X	X   X	X
	i	D/P/R		ίx	, <b>A</b>	x
			=====		====	

医哈德里斯氏性氏征 医阿朗氏性 医阿拉拉氏试验检试验检试验	8222U				***		
CAULKING	Pfr	   Min	D<1yr R<45d		D<1yr    R>45d	i -	ļ
Inspect for:						<b>以供表现的</b>	
	D/P/R		X	X		X	
 	 	D/P/R		X	 	X	
Missing caulk	D/P/R	i i	X	Х	X	x	
		D/P/R		X		×	
Eroded caulk	D/P/R		X	Х	X I	x	
 	   	D/P/R		X		X	
M&R activities as required:		   					
Remove loose, eroded, or damaged caulk, clean			Х	X	X	X	
surfaces, recaulk	į	D R		X	X 	X	
							ļ

## GENERAL BUILDING TYPES

## EXTERIOR CLOSURE - EXTERIOR WINDOWS AND LOUVERS

R = Reactivation

NOTE: D = Deactivation Pfr = Preferred P = Periodic Min = Minimal

yr = year d = days

表现 化环烷基甲基苯甲基苯甲基苯甲基苯甲基苯甲基苯甲基	#=#==	=====		l .		•
GLASS & GLAZING	   Pfr	   Min	D<1yr	D>1yr	D<1yr	D>1yr
GDASS & GDAZING		MIII	  R<45d	  R<45d	R>45d	  R>45d
	=====					
Inspect for:	 		 	 		
	D/P/R	•	X	X	X	=
l		D R	,		X	i
	<u> </u>	D/P/R	ļ.	X	} !	i x
Broken or missing glazing	D/P/R		X	X	X	
1	į	D R	į x		X	i
		D/P/R	 	X		X
Double glazing seal	   R	   R	X	X		X
failure	ĺ	į.	į			
M&R activities as required:	į	i · i				
Replace broken or missing				# <b>##</b>		
glass and glazing, &	D/P/K	! IRI	X X	X   X	X	l X l X
sealed units	İ	i	i			i
If glass or glazing broken		  D				
or missing, board up		D/P	· ^	X	^	i x
opening	!			İ		İ
Clean surfaces	   R	 	   X	X	   X	
			^	^	, <b>A</b>	, ^ 
				į		
	=====	====	-===	====	=====	***

			***			***
İ	l		D <lyr< td=""><td>D&gt;1yr</td><td>D&lt;1yr</td><td> D&gt;1yr </td></lyr<>	D>1yr	D<1yr	D>1yr
STEEL WINDOWS	Pfr	Min		D 4 4 F 3		
	 			R<45d		
Inspect for:			= <b>= = = =</b> 	<b></b>		
	======	,   =====			   ======	   =====
Cracks & holes	D/P/R		X	x		j j
ĺ	R	1			<b>X</b>	X
	!	R	X	X	) X	X
Warping & racking	D/P/R					 
waiping a racking	I R	•	^	<b>^</b>	X	   X
·	i "	R	ÌΧ	x	X	i X
Corrosion	D/P/R		l X	X	X	X
1		D R			X	,
 	 	D/P/R	! !	) X	 	X
Stains & discoloration	D/P/R	1	x	X		]
	R				X	X
	ļ	R	X	X	X	X
Loose sections & loose or	D/P/R	   R		X	X	   X
missing fasteners	D/ P/ K	K  		^	i A I i	]
	İ					
Broken or missing sections			X	X	X	X
<u> </u>	,	D R			ļ X	,
 	 	D/F/R	 	X	 	X
  Surface coat damage	D R	D R	x		X	
	D/P/R			X	j	X
	!	<u> </u>	ļ			l i
表出来表示证据	=====	====	====	******		****

M&R activities as required:	na   maissanan na par 1:  .		===== 	X20 AX AX AX AX		= C = = u
			-===			
Repair cracks & holes	D/P/R	1	l X	X		
	l R	•	!	<u> </u>	X	X
		R	į x	ļ X	X	į X
Repair damaged surfaces	D/P/R		,	X		
Reputt dumayed surraces	l R		^	^	x	l x
	į	R	x	x	X	X
Remove corrosion	D/P/R		X	X	X	
	i i i i	D R	X	i	X	i
		D/P/R	!	X		i x
Secure loose sections &	D/P/R	R		   X	   X	
loose or missing fasteners	į	į	į	į	į	į
ngu wan man ann man man man an t sain dan ban han man man man man man man man man man m			 	[ 		 
Replace broken or missing	D/P/R	İ	i x	iх	i x	i x
sections	1	D R	,	ĺ	X	ĺ
		D/P/R	ļ !	X		ļ X
Clean off surface stains	D/P/R		1 X			
& discoloration	R		İ	j	X	įχ
,		R	ļ X	X	l X	X
Clean surfaces	-  R	   R			   X	   X
orean surraces			. ^ 	! ^ 	^	, <b>^</b>
	į	İ	į	į	į	į
Prepare surfaces & paint		   D R				 
•		D/P/R		x	i	×
		l	ŀ	l	ŀ	I

医三氏性 医性性 医性性 医性性 医性性 医性性 医性性 医皮肤	****			<b>元程学生</b>			
	ĺ	j	D<1yr	D>1yr	D<1yr	D>1yr	ĺ
ALUMINUM WINDOWS	Pfr	Min					
İ		<b>!</b>	R<45d	R<45d	R>45d	R>45d	
		=====	<b>####</b>	***			ĺ
Inspect for:	1	i	l	1			ı
	****	1	1		=====	=====	ĺ
Cracks & holes	D/P/R	-	l X	l X			
}	ļ R	•	!		l X	l X	l
		ļ R	ļ X	ļ X	i x	ļ X	į
			~~~~				l
Corrosion	ļ R	R	i X	l X	ļ X	ļ X	
	1	1	j I	!	!	 	1
 	! !	 	 	 	! !	[ 	
Staining & discoloration	D/P/R	1	X	X			1
i obaliting a Gibcololacion	R		. ^	^	' x	l X	! !
1	1	l R	l x	i x	l X	X	1
		)			^ 	^ 	) 
Loose sections & loose or	D/P/R	i R	X	i x	ίχ	i x	İ
missing fasteners		i -``	i	 i	i	i	i
	Ì	i	į		j	ļ	i
							ĺ
Broken or missing sections	D/P/R	Ì	X	i x	İΧ	X	i
	1	D R	X	ĺ	X		ĺ
	1	D/P/R		X		X	ĺ
400 MM and Just Mg, 1877 MM May 1986 May 1460 Just Just Just 1886 May 1886 May 1886 May 1886 May 1886 May 1886							l
	ID R				X		l
	D/P/R	D/P/R		X		X	
	ļ						!
以对解处日安日经过报证证证证证证证证证证证证证证证证证证证证证证证证证证证证证证证证证证证证			====		=====	##===	

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M&R activities as required:						
	1					E32E3
Repair cracks & holes	D/P/R		X	X		 
] 	l R	l R	X	X	X     X	X   X
 	 			^    ~	^   	
Repair damaged surfaces	D/P/R	!	x	X		! 
	l R			ĺ	X	X
	į	R	X	X	X	×
Remove corrosion		R				
			^	^	^	· ^
	İ		ĺ		ĺ	İ
Secure local sections &	  D/P/R			   X		
loose or missing fasteners	ID/F/K	R	) X	X 	<b>X</b>	) X
1 14	<u>'</u> 	! 	! 	<del>!</del> 	! 	; 
the time and the time and the time and time and time time time and time and the time and the time and time and time and time and time and time and time and time and time and time and time and time and time and time and time and time and time and time and time and time and time and time and time and time and time and time and time and time and time and time and time and time and time and time and time and time and time and time and time and time and time and time and time and time and time and time and time and time and time and time and time and time and time and time and time and time and time and time and time and time and time and time and time and time and time and time and time and time and time and time and time and time and time and time and time and time and time and time and time and time and time and time and time and time and time and time and time and time and time and time and time and time and time and time and time and time and time and time and time and time and time and time and time and time and time and time and time and time and time and time and time and time and time and time and time and time and time and time and time and time and time and time and time and time and time and time and time and time and time and time and time and time and time and time and time and time and time and time and time and time and time and time and time and time and time and time and time and time and time and time and time and time and time and time and time and time and time and time and time and time and time and time and time and time and time and time and time and time and time and time and time and time and time and time and time and time and time and time and time and time and time and time and time and time and time and time and time and time and time and time and time and time and time and time and time and time and time and time and time and time and time and time and time and time and time and time and time and time and time and time and time and time and time and time and time and time and time and	j	i				
	D/P/R	•	X	X	X	l X
sections		DR			X	!
 	 	D/P/R	 	X	 	X
Clean off surface stains	D/P/R	l	X	i X	 	 
& discoloration	R	•		-	i x	i x
	1	R	X	X	X	X
Clean surfaces	l R	R	X	X	X	X
	, 	r 	! 	 	! 	! {
	i					i
	•	D R		ļ <u>.</u> .	X	1
(for previously painted surfaces only)	D/P/R	D/P/R		X		l X
SUFICES ONLY)	   Are the land and and		 	 	 	[ 
	1					

				l	****	
	75.	l Min	D<1yr	D>lyr	D<1yr	D>1yr
VINYL CLAD WOOD WINDOWS	Pfr 	i mru	   R<45d	  R<45d	  R>45d	
Inspect for:			 		 	
Cracks, chips, & holes	D/P/R		X			
	R	:			i x	x i
<u> </u>	 	R	) X	X	X	X
Open joints	D/P/R	<b></b>	X	X	X	X
		D R	X		X	į
 	 	D/P/R	 	\ X	 	X
Surface damage; detachment	D/P/R		X	X		
· ·	į R	•	ļ		l X	Х
 		R	X	X 	X	X
  Decayed wood core	D/P/R	i	i x	i x	j	i
	R	•	   <b>X</b>		l X	X
	 	R	X 	X 	X 	X
Staining & discoloration	D/P/R	j	i x	i x	i	
<u> </u>	l R	l I R	   <b>X</b>	   X	X   X	X     X
	 		^ 	^ 	^ 	
	D/P/R	j R	i x	į x	X	i x i
missing fasteners	1	<u> </u>  -	<u> </u>	! !	1	 
Broken or missing sections	D/P/R	•	X	X	X	X
! 	! !	ID R	l X	   X	l X	
美球球球球 计低级 医多种性 医内耳氏征 化苯基甲甲基苯基苯	No. and 107 108 100.	, , , ,	Transfer and and and and and and and and and and	!	===== 	== = r =

非智证 医乳球反射性 法被诉讼 医多头的 电记忆 计对话的 国	************	****	=====	****		*====	
IMER activities as required:			•		ļ	ļ	
医骶侧角 医性性性 医甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基	III	************	•	=====    X	======		
Patch cracks, chips, &    holes	D/P/R   R		X	, X		X	i
luotea		R	X	Х	x	x	
Replace decayed sections	D/P/R		X				l
	R				Х	Х	ļ
		R	Х	Х	Х	Х	1
Secure loose sections &  loose or missing fasteners	D/P/R	R	X   X	X	X	X	
Replace broken or missing	D/P/R		X	X	X	   X	
sections 	 	D R		X	X	   X	
Seal open joints	D/P/R		X	X	X	X	ĺ
1		D R			X		
		D/P/R		X		X	1
Clean off surface stains	D/P/R	 		X	<b></b>	<b></b>	ĺ
& discoloration	R	:	İ		X	X	ĺ
1	1	l R	l X	X	X	X	l
Clean surfaces	   R	   R					ŀ
	K     .	K	1	^	^   	1	   
	***	merman.		=====	=====	====	i

全世紀以前衛衛衛衛衛衛衛衛衛衛衛衛衛 (1)						<b>电影器数据</b>
METAL CLAD WOOD WINDOWS	   Pfr	Min 		D>1yr R<45d	D<1yr    R>45d	D>1yr
Inspect for:	100 ET 112 100 100	製造物物				====   
						====
	D/P/R	l	X	X	ĺ	
dents, & gouges	Į R	,	,		l X	X
and the upp and was the feet and the great and the great and the same and the same and the same and the same and the same and	 	R	X	X 	X	X
Corrosion	D/P/R	j .	X	X	x	i x
!	!	DR			X	
	 	D/P/R	 	X	 	X
Open joints	D/P/R	 	X	X	x	   X
1	İ	D R	X		X	, <u></u> ,
	!	D/P/R		X		X
Decayed wood core	D/P/R		X	X		 
	R		•	^	x	l x l
Į.	į	R	X	X	X	X
Chairing C discal continu	  D/P/R			X		
Staining & discoloration	IU/P/R I R		, A	Х	X	) X
İ	; • • • • • • • • • • • • • • • • • • •	R	X	x	x	Î
Loose sections & loose or   missing fasteners	D/P/R   	R   	X	X	<b>X</b>   	X       
Broken or missing sections		  DR	X	X	) X   X	) X
 		D/P/R		X	, ^ 	l X l
	ID R				X	ļ i
1	D/P/R	D/P/R	 	Х		l X l
医环球性肾术有可能共补治毒乳类种类血管治療症状征医尿症			*****		=====	   12 == == ==

M&R activities as required;	•			***	====	====  
Har accivities as required;			=====	====	====	====
Patch cracks, chips, holes,	D/P/R	İ	X	X		
dents, & gouges	l R	1			l X l X	X
	 	R	X	X	) X	X   
Replace decayed sections	D/P/R	,	х	X		i i
1	l R	,		l	X	X
	 	R	X	X	X	X
Secure loose sections &  loose or missing fasteners	D/P/R	R	X .	X	X   	X
Replace broken or missing	  D/P/R		X		   X	   X
sections	D	D R			i x	1
	į	D/P/R	ĺ	Х		X
Seal open joints	  D/P/R		   X		   X	   X
Joines		D R		^	l Â	, <u> </u>
	į	D/P/R		X		X
Clean off surface stains	D/P/R	<b></b>	x	X	 	 
& discoloration	R	:			X	i x i
	!	R	X	X	ļ X	! X
Clean surfaces	   R	   R		X		   X
Ciedii Sullaces		İ	•	^		
!	1	1			ļ .	ļ
Prepare surfaces & paint	ID R	D R				 
(for previously painted surfaces only)		D/P/R		×	<b>^</b>   	x
	=====	=====	=====	=====	=====	=====

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İ			D<1yr	D>1yr	D<1yr	D>1yr
WOOD WINDOWS	Pfr	Min	   D = A E = A	   n = 45 = 1	102454	 
	   m == == ==					R>45d
Inspect for:		1		l	 	
	•	•	=====	=====		====
Cracks, splits, & holes	D/P/R		X	X	ļ 	ļ !
1 1	R	l l R	l I X	l X	l X i X	X     X
The state will have been seen that have been state and the same will have been seen that have been seen and had been						
Warp	D/P/R	į	X	X		j j
!	į R	1	!		l X	X
	1	R	X	X	X	X
Staining & discoloration	D/P/R		i x	X		 
	R	•	į	i	i x	i x i
	1	R	i x	X	X	X
Rot	  D/P/R			   X		   X
l l		D R	•	, <b>^</b>	X   X	
İ	i	D/P/R		Х	i	i x i
Insect infestation	D/P/R		X	ļ X	X	l X I
\ 	1	ID R  D/P/R		l I X	l X	ı ı IXi
I		D/1/10			! 	<u> </u>
Fungal growth	D/P/R		X	X	X	i x i
1	•	D R		ļ	X	
	 	D/P/R		X	 	X
Loose sections & loose or	D/P/R	l R	X	) X	X	
missing fasteners	İ	İ		i		i
	!	! !				
Broken or missing sections			X			
		i i ID Ri		^ 	Y X	X
	•	D/P/R		i x		l x i
Open joints	D/P/R	: '	X	X	X	X
	•	D R   D/P/R		X	X	X
المنا الله الله الله الله الله الله الله ال						
_	D R		X		Х	į į
	D/P/R	D RI		Х		X
	  =====	   == = = =		  =====		
	•	١				

M&R activities as required:						!
Repair cracks, splits, & holes		ļ	**************************************	X	=====     X	=====     X
HOTES		R	X	X	X	X
Refinish surfaces	D/P/R R	-	Х	i x	i I X	   <b>x</b>
	 	R 	X 	X 	X 	X 
Remove rot & replace sections		D R	i x	X     X	X   X	X   X
Secure loose sections & loose or missing fasteners	D/P/R   	R	X   	X   X 	X   	X   
Replace broken or missing sections	D/P/R	l D R	X   X	i x	X   X	X
	•	D/P/R	į	X		i x
Tighten open joints		  D R  D/P/R		i x I I x	X	X     X
Eradicate insect	  D/P/R		i I X	   X	   X	
infestation		D R		   X	X	   X
Clean off fungus growth	D/P/R	l D R	X   X	X	X X	X
		D/P/R		¦ Х	~~	X
Clean off surface stains & discoloration	  D/P/R   R		 	X	   x	X
		R	x 	і х і	X	X
Clean surfaces	R 	   R 	x I	i x	X   	X   
Prepare surfaces & paint	i   D R   D/P/R		   X 	     X	   X 	     X

医多种性性性皮肤性炎性炎性炎性炎性炎性炎性炎						====
	i		1	D>1yr		
WINDOW HARDWARE	Pfr	Min	  R<45d	  R<45d	  R>45d	  R>45d
		  =====		=====	•	
Inspect for:		 		 		 
	D/P/R	•	X	X		
components (stays, handles, balances, etc.)	R	   R	l   X	   X	X X	X     X
Window locks	D/P/R		X	×	X	X
		D R		   X	X 	   X
Corrosion	D/P/R		X	X	) X	X
day day day gay light gay hay day day day nan dan law du da da day nan da da da da da da da da da da da da da		R	X   X	X 	і х І	X
Malfunction or	D/P/R		X	x	İ	į i
misalignment	R 	í R	! ! X	i x	l X	X   X
Operation of balances	D/P/R	•	X	X		
	R	R	)   X	!   X	l X l X	I X
M&R activities as required:	İ	İ		=====	=====	*****
Repair or replace broken	m====   D/P/R	•	=====   X	=====   X	   musemente	
or missing components	R		İ	×	X X	i x i x
Repair or replace window	D/P/R		) ———— ! X	   X		   X
locks		D R	Х	1	X	
		D/P/R		X 	 	X 
• •	D/P/R	-	×	×	i	İ
order, eg., unsticking a wood window	l R	l I R	l I X	X	X   X	X     X
Mild the side of the side of the side of the side of the side of the side of the side of the side of the side of the side of the side of the side of the side of the side of the side of the side of the side of the side of the side of the side of the side of the side of the side of the side of the side of the side of the side of the side of the side of the side of the side of the side of the side of the side of the side of the side of the side of the side of the side of the side of the side of the side of the side of the side of the side of the side of the side of the side of the side of the side of the side of the side of the side of the side of the side of the side of the side of the side of the side of the side of the side of the side of the side of the side of the side of the side of the side of the side of the side of the side of the side of the side of the side of the side of the side of the side of the side of the side of the side of the side of the side of the side of the side of the side of the side of the side of the side of the side of the side of the side of the side of the side of the side of the side of the side of the side of the side of the side of the side of the side of the side of the side of the side of the side of the side of the side of the side of the side of the side of the side of the side of the side of the side of the side of the side of the side of the side of the side of the side of the side of the side of the side of the side of the side of the side of the side of the side of the side of the side of the side of the side of the side of the side of the side of the side of the side of the side of the side of the side of the side of the side of the side of the side of the side of the side of the side of the side of the side of the side of the side of the side of the side of the side of the side of the side of the side of the side of the side of the side of the side of the side of the side of the side of the side of t		i				
Remove corrosion	D/P/R	 	X	X	) X	) X
000 000 000 000 000 000 000 000 000 00		   R  	X	X	   X 	' X     X
Refinish hardware	D/P/R		х	X		}
	R	l I R	   X	   X	X   X	X     X
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	====		w====		****		į
METAL LOUVERS	l <sup>.</sup>		D<1yr	D>1yr	D<1yr	D>1yr	l
<u>&amp;</u>	Pfr	Min	l				l
METAL GRILLES				R<45d			
Inspect for:		<b>===</b> =	<b>3222</b>				l
assassassassassassassassassas	====== 	wm===	   =====		   =====	 	ı
!	D/P/R	4	X	X			l
gouges	R	:	j		x	i x	ì
	İ	R	X	X	X	X	İ
							l
Corrosion	D/P/R	•	I X I X	X	X	i x	ļ
<u> </u> 	<u> </u>	D R  D/P/R		l I∵ <b>X</b>	ļ X	) X	ŀ
	 	D / E / K	 		 	, ^ !	ŀ
  Secure screening	D/P/R	! 	l x	ĺχ	i x	X	1
		D R	•		X	i	i
	Ì	D/P/R	1	X	j	įχ	ļ
							l
	D/P/R	ļ R	X	X	i x	l X	ļ
missing fasteners		1	1	 	 	 	ļ
	 	 	 	 	 	 	ŀ
Broken or missing sections	D/P/R	 	X	X	X	X	l
	1	D R		, <u></u>	i x	i	i
İ	į	D/P/R	İ	×	i	j x	i
							ĺ
,		D R		!	X	1	
	D/F/R	D/P/R	!	X	į	X	ļ
	  -====	 	[	l	 	1	ļ
	_====	====	=====		#====	=====	Ĺ

M&R activities as required:		22300			<b>建</b> 苯苯甲属		
	D/P/R		X	X		=====   	
dents, & gouges	R   	   R  	X	X	X     X	X   X	
Remove corrosion	1	D R		X	X	x i	
	 	D/P/R	 	X	 	X	
Reattach and seal	D/P/R	D R	X	X	X	х	
		D/P/R		X	 	X	1
Secure loose sections &  loose or missing fasteners	D/P/R	R	X	X	X   	x	
	   D/P/R	-	X				
sections 	 	D R		   X 	X   	X	]    -
Clean surfaces; clean  screens to keep clear air  flow	R	R	X	X	X   	X	
Prepare surfaces & paint	D R  D/P/R	ID R ID/P/R	1	X   X	X I	X   X	
医食品的过去分词 医皮肤蛋白蛋白蛋白蛋白蛋白	reman		=====	=====	=====		1

WINDOW SCREENS	l I Pfr	   Min	D <lyr< td=""><td>D&gt;lyr</td><td> D&lt;1yr </td><td>D&gt;1yr </td></lyr<>	D>lyr	D<1yr	D>1yr
WINDOW SCREENS	Plr	)   141 T I I	ı IR<45d	   R<45d	l  R>45d	  R>45d
			•	,		
Inspect for:	ĺ		!	1	<u> </u>	
	====	!		====		=====
Loose screens	 	D  D/P	l X	l I X	l X	
 	! 1	D / E 	! 	1 ^ 	l İ	^   
Damaged screens	R	. R	X	X	X	X
		<u> </u>	ļ '	ļ		!!!
Corrosion	R	R	x	X	l x	l x l
		i	i	İ	İ	i i
	!	!		<u> </u>	ļ	[ [
Custons don't domage	R	   R	X		   X	   X
Surface coat damage	l K		1 A	) ^ 	^	1 ^ I
	i		ĺ	i	i	i i
	1		=====			
M&R activities as required:			 	 		
Remove screens, store	D	=====	=====   X	X	X   X	
in building		! [	^	<b>`</b>	1	
İ	j	İ	İ	İ	İ	į i
Remove loose screens, store   in building		D  D/P	X	l I X	X	1 X 1
Duriumg 		D / E	İ	1 ^	1	) ^   
	i	i	i	i		i i
Repair or replace damaged	l R	R	X	l X	X	X
screens		1				
	 	 	 	 	 	! ! ! !
Remove corrosion	R	R	i x	i x	l x	x
ĺ	i :	İ	į	İ	İ	i i
	!	[	1	!	<u> </u>	
Refinish surfaces	   R	R	X	X	   X	   X
	1 K	I	1 ^	^ 	1 <b>^</b>	1 ^ (
İ	j		İ	i		!
Clean surfaces	R	l R	X	l X	X	X
[ 	 	] <b> </b>	l 1	! !	{ 	] 
			 	 	 	, 
Prepare surfaces & paint	R	R	X	x	Х	x
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12 新兴县 12 12 12 12 12 12 12 12 12 12 12 12 12	=====				=====	

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CAULKING	   Pfr	   Min	D<1yr	D>1yr 	D<1yr	D>1yr
			R<45d	R<45d	R>45d	R>45d
Inspect for:						
Loose caulk	D/P/R	-	X	X	X	X
	1	D R  D/P/R		)   X	X	x
Missing caulk	D/P/R	•	X	X	X	×
		D R D/P/R		   X	X	×
Eroded caulk	D/P/R	•				X
	1	D R  D/P/R		   <b>X</b>	X 	   X
M&R activities as required:	-					
	D/P/R		=====   X	X		X
damaged caulk, clean surfaces, recaulk		D R  D/P/R		   X	<b>X</b> 	   X
计分配 医内侧性 医阿拉氏氏 化二氯苯甲基苯甲基苯甲基苯甲基苯甲基苯甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基甲			***	***		

## GENERAL BUILDING TYPES

## EXTERIOR CLOSURE - EXTERIOR DOORS

NOTE: D = Deactivation Pfr = Preferred P = Periodic Min = Minimum

yr **= yea**r d = days R = Reactivation

HOLLOW METAL DOORS & FRAMES   &   STEEL DOORS & FRAMES	1	   Min	D<1yr	D>1yr	D<1yr	D>1yr
Inspect for:	   	'   	   	, 		
Cracks & holes	D/P/R	    D R  D/P/R		X X	X	X
Surface abrasion, dents,	  D/P/R   R			<del>-</del>	       X	     X
		R	X	i x	x	x
Malfunction or  misalignment	D/P/R		X   X	X   X	X   X	X
  Corrosion	    D/P/R 	     D R	X   X	X   X	X	   X 
Stains & discoloration	    D/P/R   R		     X	X     X		X 
		l R	i x	X	X   X	X   X
Loose, broken, or missing sections & fasteners		D R		X   X	X   X	!   X 
	 	D/P/R	 	X 	 	X 
	D R		,	)   X	X	   X
机臂钉链 化苯基苯酚 医阿耳氏神经 计电影 使用化法 化化化	====	****		=====		

M&R activities as required:		****	====	******	*****	本本教師 二	
222222							
Repair cracks & holes  dents, & gouges	D/P/R	D R		X	X X	X	
	1	D/P/R		X		X	
Repair damaged surfaces	D/P/R		X	X	X	   X	
		R	X	X	X	X	
Repair or replace doors &	D/P/R	R	X	X	X	X	
Remove corrosion	  D/P/R	 				   X	
; · · · · · · · · · · · · · · · · · · ·		D R		×	) X	X (	
	D/P/R		X	X	X	X	,
fasteners		D R		×	) X	X	
Replace broken or missing	D/P/R	D R	X	ж	X	X	ı
	!	D/P/R		×	A 	X	ĺ
Clean off surface stains	D/P/R	•	X	X	     X	 	
discoloration		l R	X	X	X	X	
Clean surfaces	R	R	<b>X</b>	×	X	X	
الله الله ولا الله عند منذ من الله الله الله الله الله الله الله الل		 				 	
Prepare & paint surfaces	D R	D R		×	<b>x</b> 	ı x	
THE THE THE THE THE THE THE THE THE THE		***	22 22 24 Di XI	an an ann an cu	====================================	Canada and and and and and and and and an	l

METAL COILING DOORS	=m=m=     Pfr	www		•	m= m==   D<1 yr 	
MTL SECTIONAL OVERHEAD DRS			R<45d	R<45d	R>45d	R>45d
Inspect for:						
Cracks & holes	D/P/R	,	i x	X	X   X	X
	j 	D/P/R		X	 	X
Surface abrasion, dents,	D/P/R	Ī.	x	X		
gouges, & chips	R 	R	×	X	I X I X	X   X
Malfunction or	D/P/R		X	X		
misalignment	R 	ļ R	i x	i x	l X l X	X   X
Corrosion	D/P/R	•	X	X	X	X
	!	D R	,	X	<b>X</b> 	) X
Stains & discoloration	D/P/R			X	h= h=	
•	l R	l R	×	X	X   X	X   X
Loose, broken, or missing	D/P/R			X		X
sections & fasteners	 	D R		X	) <b>X</b>	   X
Surface coat damage		D R			X	
	D/P/R 	D/P/R 	 	X 	 	X 
<b>医克里氏 经共享的现在分词 医皮肤性 医性性性性 化二氯甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基</b>		海型黑黑斑	======	=====		

M&R activities as required:	*****	<b></b>	***			****
Mak activities as reduited.					i de der pel ber ser i	
Repair cracks & holes dents, & gouges	D/P/R	D R		x	X X	X
		D/P/R	<b> </b>	X	 	X
Repair damaged surfaces	D/P/R		X	X	     X	     X
		R	X	X		X
Repair or replace doors & frames & operating	D/P/R	   	<b>X</b>	X	X 	X
mechanism	İ	R	X	X	X	X
Remove corrosion	D/P/R		X	X	X	X
,	] 	D R		X	X 	X
Secure loose sections &	D/P/R		X	×	X	X
fasteners		D R  D/P/R		X	X	   X
Replace broken or missing	D/P/R	•	X	X	X	X
sections & fasteners		ID R ID/P/R		x	X 	   X
Clean surfaces	R	   R	X	X	X	   X 
offer that then aged town this warr stell this time start hand then time have been start and and lated and half the layed the		i   <b></b>	 	 	 	   
Prepare & paint surfaces	D R	D R D/P/R		i I X	<b>x</b> 	i   <b>x</b>
苯甲苯甲苯苯苯苯	 	   =n===	 	   =======	   25 Mins and her	   ======

MET 122 PLL 128 MEE AND 182 TAN BOW HEE LEE NOO TAN MEE LEE NOO TAN MEE HEE NEED NOO TAN AND FOR THE NEED NEED TO					1007 No. 1700 Mile 1504	•
SECTIONAL OVERHEAD DOORS: WOOD PANELS	   Pfr 	   Min 	į -	į	D<1yr    R>45d	i •
Inspect for:	===== 	===== 	****	# # # # # # # # # # # # # # # # # # #	===== 	
Cracks, splits, & holes	D/P/R	<b>*****</b>     D	X		X   X   X	X   X   X
Surface abrasion, gouges, & chips	  D/P/R   R	•	X   X	   X   X	   X   X	     X   X
Malfunction or misalignment	D/P/R   R		X	X   X   X	     X   X	   X   X
Warp	D/P/R   R		   . X   X	X   X   X	   X   X	   X   X
Rot	  D/P/R   	    D R  D/P/R		X   X   X	   X   X	   X   X
Staining & discoloration	  D/P/R   R 	:	   X   X	X   X	X   X	X   X   X
Insect infestation		D R		X   X	X   X	X   X
Loose, broken, or missing sections & fasteners	ļ	  D R  D/P/R		X   X	   X   X	X   X
	   D R   D/P/R		X	X	X   X	     X
计可引动 经基本的 医多种性 化苯基甲基苯甲基甲基甲甲基甲甲甲甲甲甲甲甲甲甲甲甲甲甲甲甲甲甲甲甲甲甲甲甲甲甲	***	****	***	****		

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M&R activities as required:	ļ					 
Patch cracks, splits, & holes	D/P/R	  D R  D/P/R		×	X	X
Repair damaged surfaces	  D/P/R   R	•	   X	X	     X	     X
	1	R	X	X	X	X
Repair or replace doors, panels, or frames	D/P/R		X	X	i x	X     X
		R	X	X 	X	X
Remove & replace rotted doors, panels, or frames		D R		x	X X	x
		D/P/R 	 	X	 	X 
Eradicate insect infestation	D/P/R	i ID R ID/P/R		i x	X	X
		D/P/R	1	X 		X 
Secure loose sections & fasteners	D/P/R   	I ID R ID/P/R		X     X	X   X 	X     X
Replace broken or missing	  D/P/R		   X	   X	i	
sections & fasteners		D R	X	i x	i x	,
Clean off surface stains	D/P/R	•	X	X	 	<b></b>   
& discoloration	R	l I R	×	   X	X   X	X     X
Clean surfaces	   R 	   R 		   X 	   X 	   X
		·   		 	 	 
Prepare & paint surfaces	D R		X	X	X	X
	   ******		   ===================================			   160 862 634 756 878

胃胃肝管胃炎性肝肝炎性性性性性炎性炎性炎性炎性炎性炎性炎性炎性炎性炎	32222				=====		
WOOD DOORS & FRAMES	   Pfr	   Min	ı Incili	)  D>TĀL	D<1yr	n>Tåt	i
			R<45d	R<45d	R>45d	R>45d	ĺ
•	-		***		=====	=====	
Inspect for:	!		ļ				ĺ
cracks, splits, & holes	=====   D/P/R		======	=====   X	X	=====   X	1
Clacks, spiles, a noies		I ID R	•	^	X	-^-	l
•		D/P/R	,	х		Х	ĺ
							ĺ
	D/P/R	•	X	X		<b>.</b>	ļ
& chips	l R	l IR	! <b>X</b>	   X	X   X	X	i
-							ĺ
Malfunction or	D/P/R	j	X	X		j	ĺ
misalignment	R		!		X	X	١
 	1	R	ļ X	X	X	X	
Warp	D/P/R	 	l X	X	 		í I
	R	-	i		×	x	ĺ
	!	R	ļ X	X	X	X	ĺ
Rot	  D/P/R			X			
1	D/ F/ K	D R			X	<b>^</b>	l
	ĺ	D/P/R	,	×		i x	1
							ĺ
Staining & discoloration	D/P/R	•	l X	X		ļ	ļ
1 1	R	l IR	l X	×	∤ X ∣ X	X I X	l
	! 			^		^ 	1
Insect infestation	D/P/R	İ	ĺΧ	×	X	x	İ
		ID R			l X		1
	! !	D/P/R	 	X	  -	X	ļ
Loose, broken, or missing	D/P/R	)	) X	X	i X	X	1
sections & fasteners		D R		· ••	i x	, <b>-1</b>	1
	!	D/P/R	!	X	l	X	l
Surface coat damage	  D R		   X		 Х		!
	D/P/R			X		ı x	ı
	,	· · · · · · · · · · · · · · · · · · ·		•		. A	ĺ
计分词 美姓特尼尼尼斯斯斯斯斯斯斯斯斯斯斯斯斯斯斯斯斯斯斯斯斯斯斯斯斯斯斯斯斯斯斯斯斯斯			====	=====	=====	====	ı

医动物 医复数异性 医甲状腺 医甲状腺 医甲状腺 医甲状腺 医甲状腺 计图像 医电影 医电影 医电影 医电影 医电影 医电影 医电影 医电影 医电影 医电影	*****		医动脉性性	15 m m 2 m		****
M&R activities as required:	1		三 医	1000 EC 250 1000 line		
	D/P/R		X X	x x	X X	X   X
Repair damaged surfaces		j l	   X 	X	X	   X
		R	X	X 	X 	X
Repair or replace doors, panels, or frames	D/P/R	R   	х !	X	<b>X</b>	<b>x</b>   
Remove & replace rotted doors, panels, or frames		    D R  D/P/R		   X   X	X	   X     X
	j					
Eradicate insect infestation		  D		X 	X X I	X             X
Secure loose sections & fasteners		    D R  D/P/R		   X   X	   X   X	   X     X
Replace broken or missing sections & fasteners	  D/P/R 		   X   X	   X   X	X X	   X
Clean off surface stains discoloration	  D/P/R   R	•	   X     X	X   X   X	   X   X	   X
Clean surfaces	   R	R	i			   X 
  Prepare & paint surfaces	    D R  D/P/R	    D  D R	   X 	       X	     X 	      X
医克斯斯斯斯氏 法非营收抵押罪罪犯罪的 法现实公司员保险的					=====	

	1=====		=====	=====	=====	=====
STEEL & GLASS   DOORS & FRAMES	   Pfr	İ			D<1yr	
	İ	Ì	•	•	R>45d	•
Inspect for:	i	i	İ	İ	į	i
	=====  D/P/R		X	=====   X	=====   X	=====   X
 	1	D R  D/P/R		   X	X 	   X
  Surface abrasion;	  D/P/R		   X	   X		 
scratches	i R	i I R	l I X	   X	X X	X
  Malfunction or	  D/P/R	 	   X			 
misalignment	R	•	j	X	X X	X
Corrosion	  D/P/R					
l	İ	D R		<b>X</b>	X	X
 		D/P/R  	 	X 		X
Stains & discoloration 	D/P/R	•	X I	X	x	l X
		P P	X	X	X	X
  Loose, broken, or missing  sections & fasteners	D/P/R	i I ID RI	X X	х	X	X
raccions a racciners		D/P/R		Х	^	, X
Cracked, broken, or missing		•	X	   X	X	
glass 	•	D R		   X	X I	l I X
Curface coat damage	<del></del>   D R	  D R			   X	 
	D/P/R 	D/P/R  	<b> </b> 	X 		X I
	=====	=====	=====			

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M&R activities as required:	1					
Repair cracks & holes	D/P/R	•	X	X	X	X
	1	D R   D/P/R		X	X	X
 	·	(D/P/K)	 			
1	D/P/R	1	X	,   X	! ]	 
damaged bullages	R			<del></del>	x	х
i	j	į R	X	X	X	<b>X</b>
	-					
Repair or replace doors &			X	X		
frames	I R	•		ļ 	l X	X
	ļ	R	l X	X	ļ X	X
Remova corrosion	D/P/R					   X
		I ID R		, <b>^</b>	X	, <b>^</b>
! 	•	D/P/R		l x		x
I am had the same and had been said to make my the same and the same all the same all the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same a						
Secure loose sections &	R	į R	X	X	X	X
fasueners	İ	İ				
		l <sup>'</sup>				
Replace broken or missing			X	X	X	X
sections & fasteners	•	D R  D/P/R		   <b>'</b>	X	ا بن ا
	! 	D/ F/ K 	 	X	 	X   
  Replace broken or missing	D/P/R	! }	x	l x		; !
glass	R			i	x	x
	İ	J R	Х	X	X	X i
	j					
,	D/P	<u> </u>			X	X
board up opening; if		ID	X		X	
missing, board up opening	1	D/P	 	X	 	X
Clean off surface stains	D/P/R	, <del></del>			<del></del>	<b></b>   
6 discoloration	l R	•	, <b>^</b>	ı <b>∧</b>	l X	X
12 22002000000	*	l R	x	X	l X	X
, 						, <u></u> 
Clean surfaces	į R	j R	j x	X	i x	X
1	1	1	l	l	1	ļ
	]	!		į		į
Dronana & maint aures	— — — — —		·			
• • • • • • • • • • • • • • • • • • • •		D R  D/P/R		   <b>X</b>	X	   X
! 	Intelk	ID/E/K	l [	, <b>A</b>	l 	1 A
	=====		~====			  =====

11 11 11 11 11 11 11 11 11 11 11 11 11	=====		=====	-	*****		ı
ALUMINUM & GLASS	j	j i			D<1yr		
DOORS & FRAMES	Pfr 	i	•	•	  R>45d		, 
	=====		=====	****		=====	İ
Inspect for:	 	  ======	; ↓ = ≥ = = =	  ======	= = = = = = = = = = = = = = = = = = =	  =====	l
	D/P/R		į x	х	×	х	Ì
	•	D R  D/P/R		!   X	X 	l ∤ X	ĺ
Surface abrasion;	  D/P/R		   X				
scratches	R	l.   R	   X	   <b>x</b>	X   X	X   X	
Malfunction or	  D/P/R		   X	   X		 	 
misalignment	R	   R	   X	l I X	X   X	X   X	ļ 
Corrosion	  D/P/R	•					
	{ 	D R  D/p/R		   X	X 	   X	
Stains & discoloration	  D/P/R			   X	i L	 	
	l R	   R	   X	   X	X X	X   X	 
	D/P/R	•	   X	   X	   X	   X	ļ ļ
sections & fasteners	1	D R  D/P/R		X	X 	) X	
Cracked, broken, or missing			X		X		
glass	•	ID R ID/P/R		X	X 	   X	! 
	D R				   X	<b></b>	1
	1	D/P/R  	İ	X		<b>X</b>  -	 
	*****	==:::::::::::::::::::::::::::::::::::::	=====	=====	=====		ı

- 新斯达斯斯尼斯尼斯阿斯斯斯斯斯斯斯斯斯拉斯拉拉斯斯斯斯斯	***		M M M M M EX	-	****	
M&R activities as required:		!		]		
Repair cracks & holes	D/P/R	D R	X X	i x	X	=====     X   
		D/P/R	 	X	 	X
Repair damaged surfaces	D/P/R	•	X	X	     X	 
		R	X	X	X	X
Repair or replace doors &	D/P/R	:	X	X	     X	   X
	į	R	X	X	X	X
Remove corrosion	D/P/R	i ID R	X   X	X	X   X	X
		D/P/R		X	<b>^</b>	X
Secure loose sections &  fasteners	D/P/R	I IDR	i X	) X	X   X	X
Tubbenets	1	D/P/R	,	x		x
Replace broken or missing   sections & fasteners	D/P/R		X   X	X	X   X	) X
		D R		X	<b>^</b>	x
Replace broken or missing	D/P/R		X	X		X
glass 		R	X	X	X   X	X
	D/P				X	X
board up opening; if  missing, board up opening		D D/P	X 	X	) <b>X</b>	X
	D/P/R		X	X		
& discoloration	R	R	! ! X	X	X   X	X
Clean surfaces		R	X	X		X
	!	! <b>!</b>	    -	! 	 	! ! ! !
		D R			   X	
(for previously painted   surfaces only)	D/P/R 			) X		<b>X</b>   
· 医克里氏 自己 自己 自己 自己 自己 自己 自己 自己 自己 自己 自己 自己 自己		====	***	=====		

医乳球性性性性性炎 医红斑 医红红细胞 医红斑 医阴道性 医血管性						
SCREEN DOORS	Pfr	   Min	D <lyr< td=""><td>D&gt;1yr</td><td> D&lt;1yr </td><td> D&gt;lyr </td></lyr<>	D>1yr	D<1yr	D>lyr
SCABEN DOORS	FILE		R<45d	R<45d	R>45d	R>45d
		w====	****	***		=====
Inspect for:	====	   ======		  =====	  =====	  ======
Damaged doors	R	R	х	х	х	x i
 		 		l İ		 
Corrosion	R	R	<b>! X</b>	X	<b>X</b>	X
			ĺ	i	; 	
Surface coat damage	   R	   R			   X	   X
			, A	i ^	Ì	
M&R activities as required:						
		=====	=====   X		=====   X	
Remove screen doors, store    in building	۵ ( ا	<b>D</b> 	<b>X</b> 	X 	! A 	X   
-			ļ	İ	1	
Repair or replace damaged	R	R		X	X	   X
screen doors		į	İ	į	į	į
Remove corrosion	R	R	X	i x	Х	x
 		 	1 1	 	] [	 
Refinish surfaces	l R	R	X	l X	! X	) X
	ĺ	¦.	<u> </u>	ĺ	i	
Clean surfaces	   R	   R	   X			   X
	, ,		! ^ 	, ^ 	^	<b>^</b>
	<u> </u>	<u> </u>	ļ	!	ļ	ļ ļ
Prepare & paint surfaces	R	R				   X
-			_	į	j	
	EIRNE		医异氰酰胺	   =====	   ======	   =====

				-	====	
GLASS IN DOORS	Pfr	Min	D<1yr	1	D<1yr	
双翼 医苯基苯基苯基苯基甲基苯基甲基甲基甲基甲甲甲甲甲甲甲甲甲甲甲甲甲甲甲甲甲甲甲甲	unania.		R<45d	R<45d	R>45d	
Inspect for:	   ======			  =====		
Cracked, broken, or missing glass	D/P/R	  D   R   <b>D/P/R</b>		X	X	X
	D/P/R	 	X			<del></del> -
gaskets		D R	X	X	X	   X
M&R activities as required:						
Replace cracked, broken,	D/P/R	•	X	Х		
or missing glass	R 	R	X	X	X	X
If broken, remove glass & board up opening; if	D/P	    D	X	   	X	X
missing, board up opening	 	D/P	 	X		X
	D/P/R	•	X	X		
seals or gaskets	R	   R	Х	X	X	X
If seals or gaskets broken or missing, board up	D/P	    D			X X	X
opening	   	D/P		X	^ 	X
Clean surfaces	R	R	X	X	X	X   X
经非证据 机电子机 计进行记录 化二苯二甲基苯甲基甲基		===== 		****	 	 

医侧侧侧侧线连续 医甲甲氏结束 医红斑性红斑 医红斑 医红斑 医红斑			****			***
LOUVERS IN DOORS	Pfr	Min	D<1.yr R<45d	į "	D<1yr    R>45d	-
Inspect for:					<b></b>	
Cracks, holes, dents, &	D/P/R		X	X	X	X
		R	X	X	X	X
Corrosion 	D/P/R	  D R  D/P/R		×	X	X
Secure screening	  D/P/R 	    D R  D/P/R		X X	X   X	X
Loose, broken, or missing  sections & fasteners	D/P/R	  D R  D/P/R		×	X   X	X   X
Surface coat damage		D R     D / P / R		x	x	x

	-	NEW WH	STY NOC THE SEA MISS	27 22 #E 80) #L	<b>医医学</b>	(1) 100 (2) Us Us
M&R activities as required:			!	!	ļ	
Repair crack, holes,	=== ##   D/P/R	1	N X		   加加斯斯斯爾	<b>海影響機能</b>
dents, & gouges	R	1	<b>^</b>	1	x	x
		į R	X	X	X.	×
Remove corrosion	D/P/R		X	X	X	) X
	 	ID R		}   X	l X I	   X
Reattach and seal	  D/P/R	j				
screening	DIFIR	D R		<b>^</b>	Î	^
	ļ !	D/F/R		X		X
Secure loose sections &	D/P/R		X	×	X	X
fasteners	 	D R  D/P/R		X	X 	) X
Replace broken or missing	  D/P/R		X		   X	
sections & fasteners	1	D R	X		X	j
		D/P/R	 	<b>X</b>	 	X
Clean surfaces; clean	R	R	X	X.	X	X
screens to keep clear air flow	 	! !				
Prepare & paint surfaces	D R	D R	X	and and tops tops offer		No. 144 and 161 160
-		D/P/R		×	į . i	x
## 100 HOLD NOT AND AND NOT NOT NOT NOT NOT NOT NOT NOT NOT NOT	4 m m m m	mrxm=rx,   	10 10 10 10 10	186° 810 100 100 100 100	nate a	<b>测你或约束</b>

			=====		lusses		ı
		4	•	D>1yr	ľ		,
DOOR HARDWARE	Pfr	Min					Ì
	İ			R<45d			İ
<b>全体主义性 经</b> 化 化	trat une met man der				mmmm.		ŀ
Inspect for:	ļ		ł.	!		!	ļ
Functioning hinges	ID/P/R		•	I X			
frunctioning ninges		ID R	l X I X	, A	X   X	X	1
	i	D/P/R		i x	1	i x	i
			j				İ
Functioning door locks	D/P/R	•	X	X	X	X	
		D R			X	<u> </u>	
		D/P/R		X	<u> </u>	i x	
Broken or missing	D/P/R		X	X			ì
components	R	1	1	1	l x	X	I
	i	i R	x	i x	i x	i X	i
			j				i
Corrosion	ID/P/R		X	l X	l X	X	ļ
		DR			ļ X	!	ļ
	 	D/P/R	ļ !	l X	<u> </u> 	ļ X	ļ
Malfunction or	D/P/R		X	) X	X	X	ļ
misalignment		D R	•	ì	X	1 ^	!
		D/P/R		X	)	i x	i
医多种性氏征 经工程 医甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基	=====	====			=====	=====	į
M&R activities as required:	!	!	ļ	1			l
医多种性 电电阻 医克拉特氏 经证明 医克拉特氏 医克里特氏 化二丁二丁二丁二二二二甲甲甲甲甲甲甲甲甲甲甲甲甲甲甲甲甲甲甲甲甲甲甲甲甲甲甲甲				***	•	발표하다	l
Oil hinges	D/P/R	•	X	X	X	X	l
	•	D R   D/P/R		X	l X	v	ŀ
الله الله الله الله الله الله الله الله	 	D/E/K		^   	 	X	l
Repair or replace door	D/P/R	İ	x	X	x	ίχ	i
llocks		D R			X	i	ĺ
,		D/P/R	l	X		X	
	F						l
Repair or replace components	D/P/R   Ř		X	X			1
Companents		ı ı I Ri	x	x	X   X	X	l
						^	l
Remove corrosion	D/P/R	j	x	X	x	X	į
	1	D R	X		X		ı
	!	D/P/R		X		X	l
Clean surfaces					~~~~		ĺ
OFFILE BULLIOCS	R	R	X	X	X	Х	
that the best file and spin this god him sine some min the sage year that you drop you thin had you I you many this block	 	 					i
Prepare & paint surfaces	D R	D R	x		X		į
(previously painted	D/P/R	D/P/R		x i	- "	X	ı
surfaces only)			ĺ	İ		-	
推致 胡芹 智力 含苯苯甲磺胺 医眼球性 医以 医现象的 医原外性 经税	*:####		*****	=====	男母を非常	***	1

★本席先生的品面的可以由自己的成式的包含有限的。		***		<b>医原形性性</b>		
CAULKING	Pfr	   Min	_	D>1yr	]	
The same have not have been some force that are not some some some head from this made and both built in come and	<u> </u>			R<45d		
Inspect for:		,		j	ĺ	
Loose caulk	====  D/P/R	*****	======   X	k==nt	X  amence	== == ==     X
	ĺ	D R	X	i	x	i
	 	D/P/R		X	 	X
Broken or missing caulk	D/P/R		x	x	×	×
 	 	D R		X	l X	X
Eroded caulk	D/P/R	i	X	X	X	X
	!	D R D/P/R		   <b>X</b>	X 	ı x
M&R activities as required:						
	D/P/R		X	X	X	X
eroded caulk	<b>†</b> !	D R	,	l X	X	   <b>X</b>
Clean surfaces & recaulk	D/P/R	D R	X   X	X	X   X	X
	1	D/P/R	ĺ	X	^	' <b>X</b>
<b>医黑斑性性性 医肾经胱红腺 化二氯甲基苯甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基</b>		<b>医口部的口</b>	=====		=====	Z=222

### APPENDIX D:

# INSPECTION AND M&R CHECKLISTS FOR INTERIOR CONSTRUCTION

#### General Notes on Structure

Structural Components

Failures occurring during the normal life expectancy of buildings and structures should be carefully investigated, and the fundamental defects corrected prior to superficial repair.

If the cause of the failure is not immediately discernible, or if the corrective measures are not straightforward or standard, consultation and advice should be obtained from qualified architects or structural engineers. Most of the defects listed for the structural components could result from a number of mechanisms; the cause and extent of deterioration may simply be unknown.

The architect or engineer should determine the cause of the deterioration and the strength of the existing structure and then provide recommendations on how to proceed. These recommendations may include:

- 1. To permit deterioration to continue
- 2. To take measures to preserve the structure in its present condition without any attempt to strengthen it
- 3. To strengthen the construction
- 4. To reconstruct or abandon the construction, if deterioration is exceptionally severe.

The decision should be rendered on the basis of safety, economics, and appearance.

#### Cracks

Before any attempt is made to repair a crack, an investigation should be undertaken to determine the cause of the crack. The following precautions should be observed:

- Do not attempt to repair cracks as soon as they appear. Observe the cracks periodically over time to determine whether the crack is active or passive. Determine the cause of the crack and correct it.
- 2. Do not attempt to repair a fine crack by chiseling out a deep groove and repointing. Repair fine cracks by filling or bridging over with a cement-based wach or paint.
- 3. Do not caulk cracks above grade with light plastic or dark bituminous caulking compounds that will contrast with the wall finish. If such materials must be used, seal the caulking by coating with a shellac or aluminum paint, then paint to match the surrounding area.

#### Holes

Take immediate corrective measures if holes are of a size or depth that may cause substrate deterioration or permit water penetration.

## Concrete Masonry Walls

For bowing, bulging, and out-of-plumb concrete masonry walls and retaining walls, note that general deviations from the vertical and horizontal in excess of 1/240 of the unsupported length, or 0.5 in. per 10 ft,\* are likely to be noticed and should be investigated by a qualified architect or structural engineer.

### General Notes on Painting

When corrosion is removed from a surface, that surface must receive touch-up paint.

Existing paint coatings may contain lead, which is a hazardous material. Special precautions must be taken when working with or around such coatings.

If pitting corrosion is present, remove corrosion, spot prime and topcoat entire surface. If pitting corrosion continues, determine cause of corrosion and fix the condition before performing any further M&R.

#### Interior Metal

#### Preferred Maintenance:

Perform surface preparation of general corrosion covering 3 percent or more and pitted corrosion covering 0.1 percent or greater of the surface.

#### Minimal Maintenance:

Perform surface preparation of deteriorated coatings covering 5 percent or more and pitted corrosion covering 0.25 percent or more of the surface.

#### Interior Concrete

### Preferred Maintenance:

Perform surface preparation of deteriorated coatings covering 3 percent or more of the surface.

#### Minimal Maintenance:

Where noted, perform surface preparation of deteriorated coatings covering 10 percent or more of the surface.

## Interior Wood

### Preferred Maintenance:

Where noted, perform surface preparation of deteriorated coatings covering 3 percent or more of the surface.

<sup>\*</sup>U.S. standard units of measure are used in this report. A metric conversion table can be found on page 8.

#### Minimal Maintenance:

Where noted, perform surface preparation of deteriorated coatings covering 7 percent or more of the surface.

#### Interior Concrete Masonry Unit

### Preferred Maintenance:

Perform surface preparation of deteriorated coatings covering 3 percent or more of the surface.

#### Minimal Maintenance:

Perform surface preparation of deteriorated coating covering 10 percent or more of the surface.

### Checklist Contents

The interior construction component consists of the architectural and structural elements contained within the building envelope. Its subcomponents are Walls, Floors and Bases, Ceilings, Doors, Specialties, and Exposed Structural Elements. This component does not include furniture, furnishings, or equipment.

### Walls

Concrete Masonry Units
Structural Glazed Tile & Brick Masonry Units
Gypsum Wallboard
Gypsum Plaster
Ceramic Tile
Concrete Walls
Wood Paneling & Wood Surfaces
Wood Veneer Faced Paneling & Plastic Laminate Paneling
Viryl, Fabric, Wallpaper
Metal Cladding & Metal Panels

### Floors & Bases

Concrete Floors
Resilient Tile & Resilient Flooring
Terrazzo Flooring
Wood Flooring
Ceramic Tile
Carpet
Bascs: Vinyl, Metal, Wood, Structural Glazed Tile, &
Ceramic Tile

# Ceilings

Concrete Ceilings
Suspended Metal Ceilings
Gypsum Board Ceilings & Plaster Ceilings
Acoustical Ceilings
Exposed Ceiling Insulation

### Doors

Hollow Metal Doors & Frames; Steel Doors & Frames Metal & Glass Doors & Frames Wood Doors & Frames Glass in Doors Louvers in Doors Door Hardware Caulking

## Specialties

Metal Toilet Partitions
Toilet & Bath Accessories
Metal Wall Louvers
Metal Grilles & Screens
Identifying Devices: Bulletin Boards, Interior Signs,
Directories, Etc.
Metal Lockers
Fire Protection Cabinets
Storage Shelving
Closet Specialties
Casework
Wood Bleachers
Venetian Blinds

# Exposed Structural Elements

Trusses Roof Rafters & Purlins Joists, Beams, & Girders Columns

# GENERAL BUILDING TYPES

# INTERIOR CONSTRUCTION - WALLS

NOTE: D = Deactivation

P = Periodic

R = Reactivation

Pfr = Preferred Min = Minimal

yr = year d = days

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	P	   R	X	X	X	X
Chips & gouges	D/P/R	:	<b>X</b>	X	X	X
المن الله الله الله الله الله الله الله الل		R	X	X	X	X
Surface marring	D/P/R	•	į x	x	i X	x
والمن المنا المنا المنا شاء شاء شاء شاء سنة المنا		R	X	X	X	X
Spalling & scaling	D/P/R		į x	X	i I X	i I <b>X</b>
the and this had the size and the little left had fill the field film you diff had the jield had her her the the fill the		R	X 		X	X
Staining & discoloration & mildew	D/P/R	j R   	<b>x</b>   	X   	i x ! !	<b>i x</b>   
Exposed reinforcing	D/P/R		X	X	X	
1		D R		   X	X	   X
Damaged expansion joints	D/P/R	I ID R	X   X	X	X   X	X
	   	D/P/R		   X	^	   X 
Surface coat damage	D R	ID ID R	X   	X	X   	X   X
Locate source of moisture penetration	  D/P/R 	    D R  D/P/R		   X   X	   X   X	·   X     X
计对键 建氯化 克克 美 机 阿 美 美 美 美 美 美 美 美 美 美 美 美 美 美 美 美 美		****	-			## ## ## ##

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M&R activities as required:				***			
Repair cracks & holes	D/P/R		х	X	X	i x	
	K	R	X	X	X	X	
Patch chips & gouges	D/P/R		X	X	     X	   x	
	R 	R	X	X	X	X	
Repair spalled or scaled	D/P/R		X	X			
area 	l R !	l   R	   X	i X	X   X	X     X	
Clean rebar & adjacent	D/P/E	•	X	X	X	X	
concrete; coat rebar,  patch area	    -	D R D/P/R		i x	X 	,   X	
Replace rebar; clean	D/P/R		X	X			
adjacent concrete, patch  area	R 	l R	X	X	X	X     X	
Repair expansion joints	D/P/R	:	X	X			; 
 	R 	! ! R	¦ x	i x	X   X	X   X	] ]
Clean off surface stains &  discoloration & mildew	  D/P/R   	   R 	X   	   X 	X   	X	
Clean surfaces	   R	   R 		   X 	   X 	   X 	
 	    D' R  D/P/R	D R	   X 	     X	   X 	   x	1       1
	  ======		   m == == == ==		   ======		i

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WOOD PANELING		!	D<1yr	D>1yr	D<1yr	D>1yr
& WOOD SURFACES	Pfr	Min	  R<45d	   R<45d	  R>45d	  R>45d
・ はは最高にははなるのでしょう。 しっこう いっこう はんしょう はままま はままま はままま はままま はままま はままま はままま はま			田林田東京	=====	:	
Inspect for:	į	į	į	į	į	į
Cracks, chips, holes, &	D/P/R	1	X	www.	#20053 	===== 
gouges	R		i		i x	i x
		R	X	) X	X	X
Surface marring & abrasion	D/P/R		) X	X		 
	R				X	X
الله المنا المنا الله على على الله الله الله الله الله الله الله ال		R	X'	X	X	X
Warp; loose sections	D/P/R	i	X	х	i	İ
	R	   R	   <b>X</b>	 	I X	X I X
			X 	X 	X 	X 
Staining & discoloration & mildew	D/P/R   	i R I I	i <b>x</b>   	X   	<b>X</b>   	j <b>x</b> !
Rot	D/P/R				   X	
		D R	X		χ̈́	"
	 	D/P/R	 	X	 	X
Insect infestation	D/P/R	<b>-</b>	X	X	X	X
		ID R			X	
Nike that NIVO tops date NIVO table start your most rote was slick onto been front they work upon each ride. H & work what and ride		D/P/K	 	X	 	X 
Surface coat damage	D R		X		i x	ĺ
	D/P/R	ID R	 	<b>X</b>	{ 	X
		j	1 144 We was 444			
Locate source of moisture penetration	D/P/R	l IDR	l X l X	) <b>X</b>	X   X	) X
t arrange ala mass	i	D/P/R		x	<u> </u>	X
医乳球性神经 医甲基甲甲基苯甲基苯甲甲基苯甲甲甲甲甲甲甲甲甲甲甲甲甲甲甲甲甲甲甲甲甲甲甲甲甲						

M&R activities as required:		Messes		니프트프프 I	anae	wzmae
	700 BEE BEE LITE (BEE	•	,	•	   :::::::::::::::::::::::::::::::::::	  ===== 
Patch cracks, chips, holes,  & gouges	R	ı	<b>X</b>   •	l X I	l X	x
		R	X	X 	X	X
Repair damaged surfaces	D/P/P.		Х	X		<u> </u>
	R	l R	i X	) X	I X I X	X     X
Refinish damaged surfaces	D/P/R		X	X		
	R	R	   <b>X</b> .	   <b>X</b> .	i X	X     X
Secure loose panels	D/P/R		X	X		
	R	R	i X	   X	X   X	X     X
	D/P/R	:	X	X		
	R 	R R	X	x.	X   X	X     X
Replace rotted panels	D/P/R		X	X	X	X
} 	! !	D R		x	) X	X
	D/P/R	:	X	X	X	   X
infestation 	!	D R		x	X 	
Clean surfaces	   R	   R	X	X	X	X
•	•	D	X		X	<b></b>   
	D/P/R 	D R	 	X		X
医自体性性 医甲基甲基苯甲基甲甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基甲	=====		material es	***		200 20 20 20 20 E

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WOOD VENEER FACED PANELING	   Pfr					D>1.yr
PLASTIC LAMINATE PANELING						R>45d
Inspect for:	i	j	İ	į	ĺ	
Cracks, chips, holes, &	D/P/R	Ì	=====   X	X	i	İ
gouges 	R 	   R	l I X	   X	X X	X   X
Surface marring & abrasion			X			Mark Artes stands that in gas
	R 	R	!   X	   X	X X	X   X
Warp; loose sections	D/P/R		X	X		
	R 	l R	   X	   X	X   X	l X l X
Staining & discoloration & mildew	D/P/R	R   I	X   X 	X   X 	X   X	X   X
Rot	  D/P/R	 	   X	   X	   X	   X
	 	D R		   X	X	   X
Delamination	  D/P/R		X	X		<b></b>
	R	   R	X	X	X X	X   X
Insect infestation	  D/P/R	•	X	X	X	   X
	•	D R   D/P/R	1	X	X	   X
	  D/P/R		X	X	x	   X
penetration	İ	D R   D/P/R	X	X	Х	   X
	=====	-===	=====	====	=====	====

	I	; !:	l			l	
M&R activities as required:	1						
				X	<b>== = =</b>	=====   	
Patch cracks, chips, holes,	I R		X	. ^	l I X	X	
& gouges		R	X	X	X	X	
مناه المناه المناه فيها فقال فقتا المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه المناه الم							i
Repair damaged surfaces	D/P/R		! X	X	,		
	l R	l I R	l l X	l I X	X   X	i X I X	ı
					^ 		i
Refinish damaged surfaces	D/P/R	, 	j x	Х		İ	l
	R	•	!	!	X	X	
		R	X	X	X	) X	J
Secure loose panels	D/P/R	<del></del>	X	i X			l
becare roots paners	R	•	i	i	i x	i x	١
	ļ	R	i x	l X	X	! X	ĺ
Replace panels	D/P/R						l
Replace baners	R	-	<b>`</b>		X	i x	
	į	i R	X	i x	X	X	İ
	D/P/R		 				
Replace rotted panels	ID/P/K	I ID R	•	; A	i X	<b>`</b>	1
	1	D/P/R		i x		x	1
							١
Eradicate insect	D/P/R	,	X	l X	X	l X	
infestation	1	D R  D/P/R	•	}   X	X	X	l
NAME AND AND THAT THAT AND	 	D/E/K	 				İ
	D/P/R	। ए	i x	i x	i x	i x	ĺ
& discoloration &	!	!	1	!	į	1	İ
mildew			•	[ 			
Clean surfaces	   R	R .			X		1
Service Special English Service Service Co.		 			ĺ		ĺ
	ļ	ļ	l		1	1	l
-		=====	=====	=====	====	_=====	l

在环境性性工程性可以使用性性性性性性性性性性			####	1	l .	•
VINYL, FABRIC, WALLPAPER	Pfr	   Min	D <tyr< td=""><td> D&gt;1yr  </td><td> D&lt;1yr</td><td> D&gt;1yr  </td></tyr<>	D>1yr 	D<1yr	D>1yr 
	] :		•	•	R>45d	
Inspect for:			====		101 <b>12 12 12 12 1</b> 2 1	
Holes, gouges, splits,	D/P/R	•	X   m=m=n	X		
tears, peeling, &	R	•	Ì	. ^ 	x	i x
blistering		R	Х	X	X	X
Surface abrasion and	D/P/R		i x	X		
marring	ļ R	•	ļ		X	X
	 	R	X	X	X	X
Staining & discoloration	R	R	X	X	×	i x
a. •			 	 	 	
Insect infestation	D/P/R		X	X	X	X
	 	D R		   X	<b>X</b> 	   X
Moisture damage	  D/P/R	 		   X	<b></b> 	
,	R	•	<u> </u>		×	x
		R	X	X	X	X
	D/P/R		X	X	X	X
penetration	ļ.	D R			X	]
	 	D/P/R		X		l X
	=	=====		=====	====	=====

M&R activities as required:				=====	====== 		
	=====	****					
Patch holes, gouges,  splits, & tears	D/P/R   R		l X	X	l I X	X	l
Control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the cont		R	X	X	X	X	
Resecure peeling or	D/P/R	•	X	X			
blistering paper	R	l I R	   X	   X	}	X   X	
Repair damaged surfaces	D/P/R   .R		X 	X	X	l X	
·		R	X	Х	, X	X	
Replace sections	D/P/R		X	Х			
	l R	l l R	X	X	X   X	X X	
Eradicate insect	  D/P/R		   X	   X		   X	
infestation 	] 	D R		X	X 	x	i I
  Repair moisture damage	  D/P/R		   X	X			 
 	l R	l R	   X	x	X     X	X	İ
Clean surfaces	   R	   R	<b></b>	X	X	X	ļ
	 	<u> </u>					
	- 12   12   12   13   13   13   13   13	====	====	=======================================			l

医医乳腺性囊肿 医多种性 医甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基			****			
METAL CLADDING	1	1	D<1yr	D>1yr	D<1yr	D>1yr
&   METAL PANELS	Pfr	Min	   15	  R<45d	   <b>D</b>	)   D\454
Beresser and the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of	 	   ===ux				
Inspect for:	i	i	İ	İ	İ	ĺ
	=====  D/P/R		=====	====   X	====	
Cracks, holes, dents, & gouges	ID/P/R	•	<b>^</b>	) <b>^</b>	,   Х	   X
	i	j R	i x	j x	i x	X
Surface marring	D/P/R	•	<b>X</b> 	) A	<b>. X</b>	   <b>X</b>
	i	R	i x	i x	X	X
Staining & discoloration	   R	 			   X	
Staining & discoloration			) ^ 	1 <b>^</b>	<b>^</b> 	
	j	į i	İ	į	į	j
Corrosion	  D/P/R		   X	   X	   X	
COTTOS.COM	DIEIR	D R		^	X	^
	İ	D/P/R		Х	ļ	X
Deformed sections	D/P/R	 				
20101	R	•	"		X	x
		R	X	X	X,	X
Loose, broken, or missing	D/P/R		X	X		
sections or fasteners	R	j	İ		X	x
		R	X	X	X	X
Surface coat damage	D R	D R	) X	<b></b>	X	———— 
-		D/P/R		Х		i x
Locate source of moisture	D/P/R	<del>-</del>	X	X	X	X
penetration	İ	D R			X	İ
		D/P/R	 	) X	 	X
	== == == == == == == == == == == = = =			_====		

ALLERTH PROPERTY   M&R activities as required:	•				=====	
Patch small cracks & holes;			 	   E=E==   X	   = == = = = = = =	;   =====
replace sections with large  cracks & holes			i	X	X X	X
Replace sections with	D/P/R   R	Ì	X   X	X	X   X	 
		R 		X 		
Remove corrosion	D/P/R 	  D R  D/P/R	,	X     X	X   X	) X   
			i			
Replace deformed sections   	D/P/R   R 		X     X	X     X	   X   X	
Secure loose sections &	  D/P/R   R	•		   X	     X	     X
		R	x	x	X	i ŝ į
Replace broken or missing sections & fasteners	D/P/R   R	-	X	X	     X	 
	ļ	į R	х	Х	X	X
Clean surfaces	R	R	Х	X	X 	   X
Prepare & paint surfaces		     D R   D/P/R			!     X 	      X
	ĺ	İ	j		  -===	İ

# GENERAL BUILDING TYPES

# INTERIOR CONSTRUCTION - FLOORS & BASES

NOTE:

D = Deactivation
P = Periodic

R = Reactivation

Pfr = Preferred

Min = Minimal

yr = year d = days

ng			D<1yr	D>lyr	=====   D<1yr	D>1yr
CONCRETE FLOORS	Pfr	Min	R<45d	R<45d	R>45d	R>45d
Inspect for:						
Cracks & holes	D/P/R	<b></b>   	X	X	X	x
ng gan nan nga mar lant lant nint at 3 1850 MM nga paga tay paga tay man nint nga tant lang taya tant bag alla		R	X	X	X	X
Surface abrasion, wear, & gouges	D R	!   	x	X	X	X
		. R	X	X	X	X
Spalling & scaling	D/P/R	)   	X	X	X	×
		R	X	X	X	X
Stains & discoloration	R	R	x	х	×	X
Surface coat damage	  D R	    D	     X	 	   X	 
-	D/P/R	D R	 	X	<b>!</b> !	X 
Locate source of moisture penetration	D/P/R	     D R	   X   X		   X   X	
Sellectacion	·	D/P/R		   X	. A '	!   X

					***	
M&R activities as required:						
Patch cracks & holes	D/P/R R	İ	X	X	X	X
		R	X	X	X	X
Repair gouges; resurface or		]	х	X		
patch eroded surfaces	R	   R	   X	   <b>X</b>	X   <b>X</b>	X   X
Remove spalling & scaling,	D/P/R	*****	X	X		
patch area	R	R	   <b>x</b>	×	X	X
Clean surfaces	R	R	X 	X	   X 	X
سنة الله الله الله المن ومد المن المن منه منه منه منه المن المن المن المن المن المن المن المن			 			
	ID R ID/P/R		X   	   <b>X</b> 	X	)   X
<b>计算证据的复数形式 医电影 医电影 医电影 医电影 医电影 医电影 医电影 医电影 医电影 医电影</b>						

						-
RESILIENT TILE	Pfr	Min	D<1yr	D>1yr	D<1yr	D>1yr
RESILIENT FLOORING			R<45d	R<45d	R>45d	R>45d
Inspect for:				   		
Cracks, chips, & holes	D/P/R	:	X	X	x	
		R	X	   X	X	X
Surface abrasion, wear, &	D/P/R		X	X		
gouges	K	R	x	×	X   X	X
Stains & discoloration	R	   R	X	X	X   X	X
Loose or missing tiles	D/P/R	-	   X		   	
		R	x	х	X	X
Open joints	D/P/R		X	X		
	R	R	X	х	X	X
Locate source of moisture	D/P/R	•	X	X	X	X
penetration		D R		х	X 	x
- " " " " " " " " " " " " " " " " " " "						

		-	TOTAL THE THE PART THE				]
M&R activities as required:	 					   100   100   100   100   100	
Replace damaged tiles	D/P/R	1	X	X			ĺ
•	R	ł	j I		i x	X	ĺ
	1	R	X	X	X	X	ļ
Replace missing tiles	D/P/R	———— 	X	X	 	<del></del>	l
•	R	ĺ	Ì		l X	X	ĺ
•		R.	X	X	X	X	ļ
Readhere loose tiles	D/P/R		X	X		————— 	!: 
	R	1	·		X	<b>X</b>	ĺ
		l R	X	X	X	X	Ì
Clean surfaces	R	R	X	X	X	i x	ľ
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		   == == == == == == == == == == == == ==				   ======	

		=====				
	i	i	•			D>1yr
TERRAZZO FLOORING	Pfr	Min				
		<u> </u>	R<45d	R<45d	R>45d	R>45d
Inspect for:			   ===================================			
President and Service and Service and Service and Service and Service and Service and Service and Service and Service and Service and Service and Service and Service and Service and Service and Service and Service and Service and Service and Service and Service and Service and Service and Service and Service and Service and Service and Service and Service and Service and Service and Service and Service and Service and Service and Service and Service and Service and Service and Service and Service and Service and Service and Service and Service and Service and Service and Service and Service and Service and Service and Service and Service and Service and Service and Service and Service and Service and Service and Service and Service and Service and Service and Service and Service and Service and Service and Service and Service and Service and Service and Service and Service and Service and Service and Service and Service and Service and Service and Service and Service and Service and Service and Service and Service and Service and Service and Service and Service and Service and Service and Service and Service and Service and Service and Service and Service and Service and Service and Service and Service and Service and Service and Service and Service and Service and Service and Service and Service and Service and Service and Service and Service and Service and Service and Service and Service and Service and Service and Service and Service and Service and Service and Service and Service and Service and Service and Service and Service and Service and Service and Service and Service and Service and Service and Service and Service and Service and Service and Service and Service and Service and Service and Service and Service and Service and Service and Service and Service and Service and Service and Service and Service and Service and Service and Service and Service and Service and Service and S	一門可沙里里			   <b>             </b>	▎ ▎▆▆▆▆▆▆	電数機器は
Cracks, chips, & holes	D/P/R	Ì	i x	x		
	R	•	Ì	ĺ	X	X
	ļ	R	l X	ļ X	ļ X	X.
Surface abrasion, wear, &	D/P/R			X		
gouges	R			A	i x	x
	i	R	i x	X	X	X
have had that take specifying had been been have been done and days had dies had the cold the top specify with that dies had						
Staining & discoloration	R	ļ R	X	ļ X	ļ X	X
	} 	1 	 	! !	 	  -
and the control of the time that the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the						i
	D/P/R	Ì	X	X	İ	j
strips	R	•	1	1	X	l X
		R	l X	X	X	X
Broken or missing divider	D/P/R		1 X	X		
strips	R	•	i		i x	i x
	i	R	i x	j x	X	i x
من سن جان بناہ میں ہیں گاڑ کی کا کی بیان سا شد شہر ہات سند شہر ہانہ اسا سات سند سے سے سے سے ہیں میں اسا						
	D/P/R	D R	X   X	X	X   X	l X
penetration	l ì	D/P/R	,	l X	A	l x
经付款 化氯化 化苯基苯基苯基苯甲苯苯苯苯苯苯苯苯苯苯苯		=====	=====			
M&R activities as required:	İ	İ	İ	İ	İ	İ
	単三年末三		=====	****		
Repair or replace damaged areas	D/P/R		ļ X	X		   <b>'</b>
areas		i R	l x	l X	X   X	) X ! X
على الله الله الله الله الله الله الله ال						
	D/P/R	İ	X	j x	İ	İ
divider strips	R	•		<u> </u>	l X	X
	I	R	X	X	X	X
Clean surfaces	R	R		~		X
	· ``				, ,	, ^
	İ	İ	İ	İ	j	
<b>电线数据型 副國際經濟 医多种 医多种 医多种 医多种 医多种性 医多种性 医多种性 医多种性 医多种</b>		※作品を表	おおまる ※	-		

100 100 100 100 100 100 100 100 100 10		-		***			
WOOD FLOORING	!   Pfr	   Min	D<1yr	D>1yr	D <lyr  </lyr 	D>lyr 	1
İ	ĺ	j	•	R<45d	,		•
Inspect for:		###### 		   ===================================	== w ==	===n= 	l I
	1		1				į
Cracks, splits, & holes	D/P/R   R	-	) X	) X	X	l I X	¦ 
	į	R	į x	X	X	X	į
Sags & warp	D/P/R		,	X		 	1
	! R	•	l I X	į	X	X	į
The real limit was the limit that the limit that the limit that the limit that the case was up 1 high that the limit that the limit that the limit that the limit that the limit that the limit that the limit that the limit that the limit that the limit that the limit that the limit that the limit that the limit that the limit that the limit that the limit that the limit that the limit that the limit that the limit that the limit that the limit that the limit that the limit that the limit that the limit that the limit that the limit that the limit that the limit that the limit that the limit that the limit that the limit that the limit that the limit that the limit that the limit that the limit that the limit that the limit that the limit that the limit that the limit that the limit that the limit that the limit that the limit that the limit that the limit that the limit that the limit that the limit that the limit that the limit that the limit that the limit that the limit that the limit that the limit that the limit that the limit that the limit that the limit that the limit that the limit that the limit that the limit that the limit that the limit that the limit that the limit that the limit that the limit that the limit that the limit that the limit that the limit that the limit that the limit that the limit that the limit that the limit that the limit that the limit that the limit that the limit that the limit that the limit that the limit that the limit that the limit that the limit that the limit that the limit that the limit that the limit that the limit that the limit that the limit that the limit that the limit that the limit that the limit that the limit that the limit that the limit that the limit that the limit that the limit that the limit that the limit that the limit that the limit that the limit that the limit that the limit that the limit that the limit that the limit that the limit that the limit that the limit that the limit that the limit that the limit that the limit that the limit that the		R 		X 	X 	X 	
Surface abrasion, wear, &  gouges	D/P/R   R	-	X	X	   <b>X</b>	ĺ	į
gouges		R	X	X	X	X X	
Staining & discoloration	R	Ŕ	X	X		   X	
1	 	] 	! !	] I	 	 	Ì
							į
Rot	D/P/R 	ID R	X   X	l X	X	X 	1
		D/P/R		X	į	×	į
Loose or open joints	D/P/R		X	X	X	X	
		D R		l I X	X	,	İ
The same that their later their later can take their can be seen that the can be seen their part of the can be seen their can be seen their can be seen their can be seen their can be seen their can be seen their can be seen their can be seen their can be seen their can be seen their can be seen their can be seen their can be seen their can be seen their can be seen their can be seen their can be seen their can be seen their can be seen their can be seen their can be seen their can be seen their can be seen their can be seen their can be seen their can be seen their can be seen their can be seen their can be seen their can be seen their can be seen their can be seen their can be seen their can be seen their can be seen their can be seen their can be seen their can be seen their can be seen their can be seen their can be seen their can be seen their can be seen their can be seen their can be seen their can be seen their can be seen their can be seen their can be seen their can be seen their can be seen their can be seen their can be seen their can be seen their can be seen their can be seen their can be seen their can be seen their can be seen their can be seen their can be seen their can be seen their can be seen their can be seen their can be seen their can be seen their can be seen their can be seen their can be seen their can be seen their can be seen their can be seen their can be seen their can be seen their can be seen their can be seen their can be seen their can be seen their can be seen their can be seen their can be seen their can be seen their can be seen their can be seen their can be seen their can be seen their can be seen their can be seen their can be seen their can be seen their can be seen their can be seen their can be seen their can be seen their can be seen their can be seen their can be seen their can be seen their can be seen their can be seen their can be seen their can be seen their can be seen their can be seen their can be seen their can be seen their can be seen their can be seen thei	İ		 			X 	ì
Loose, broken, or missing	D/P/R	  D R	X	X	X   X	X	Ì
	! !	D/P/R		Х	^	х	
Insect infestation	D/P/R	~~		X			 
1	•	D R			Х		į
		D/P/R  		X 	 	X	1
Fungal growth	D/P/R		X	х	X	x	į
		D R   D/P/R		X	X	X	1
Locate source of moisture	D/P/R						į
penetration	j	D R	X (	^ I	X	Х	 
		D/P/R		X		X	ĺ
				** == == == == ==	<u> </u>		L

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M&R activities as required:	1	[				i l
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Repair or replace damaged	U/P/R	1	X	X	Ì	
areas	R		}		X	X
		R	X	X	X	X
Replace broken, missing, or	ID/P/R	<b></b>	X		X	X
rotted sections	i	D R	•		i x	į
	<u> </u>	D/P/R		х	į	Х
Readhere loose sections	D/P/R					 
	R		•		ĺх	i x
•	1	R	x	x	X	X
وملة فعلد فقط بالقاء فقد نقطة تسبد فعلة فسنة فصل هذاك كالما فعد دولة فسنة عبود كانت بحدد عميد وجرب وبدة فعمر						
Eradicate insect	D/P/R	i	Х	X	х	i x i
infestation		D R	-		X	ĺ
	į	D/P/R		X	ĺ	X
Clean surfaces	R	R  	X	X	X 	X 
Refinish surfaces	D/P/R		X			
METTHIEN SHITAGES	D/F/R   R	1	Λ .	^	≀ I <b>X</b>	l X
	] <b></b>	! IR	l I X	l X	I A I X	l X
11-7 For the COT THE COT AND ALL COM THE COT THE COT IN THE COT THE COT THE COT THE COT THE COT THE COT THE COT THE COT THE COT THE COT THE COT THE COT THE COT THE COT THE COT THE COT THE COT THE COT THE COT THE COT THE COT THE COT THE COT THE COT THE COT THE COT THE COT THE COT THE COT THE COT THE COT THE COT THE COT THE COT THE COT THE COT THE COT THE COT THE COT THE COT THE COT THE COT THE COT THE COT THE COT THE COT THE COT THE COT THE COT THE COT THE COT THE COT THE COT THE COT THE COT THE COT THE COT THE COT THE COT THE COT THE COT THE COT THE COT THE COT THE COT THE COT THE COT THE COT THE COT THE COT THE COT THE COT THE COT THE COT THE COT THE COT THE COT THE COT THE COT THE COT THE COT THE COT THE COT THE COT THE COT THE COT THE COT THE COT THE COT THE COT THE COT THE COT THE COT THE COT THE COT THE COT THE COT THE COT THE COT THE COT THE COT THE COT THE COT THE COT THE COT THE COT THE COT THE COT THE COT THE COT THE COT THE COT THE COT THE COT THE COT THE COT THE COT THE COT THE COT THE COT THE COT THE COT THE COT THE COT THE COT THE COT THE COT THE COT THE COT THE COT THE COT THE COT THE COT THE COT THE COT THE COT THE COT THE COT THE COT THE COT THE COT THE COT THE COT THE COT THE COT THE COT THE COT THE COT THE COT THE COT THE COT THE COT THE COT THE COT THE COT THE COT THE COT THE COT THE COT THE COT THE COT THE COT THE COT THE COT THE COT THE COT THE COT THE COT THE COT THE COT THE COT THE COT THE COT THE COT THE COT THE COT THE COT THE COT THE COT THE COT THE COT THE COT THE COT THE COT THE COT THE COT THE COT THE COT THE COT THE COT THE COT THE COT THE COT THE COT THE COT THE COT THE COT THE COT THE COT THE COT THE COT THE COT THE COT THE COT THE COT THE COT THE COT THE COT THE COT THE COT THE COT THE COT THE COT THE COT THE COT THE COT THE COT THE COT THE COT THE COT THE COT THE COT THE COT THE COT THE COT THE COT THE COT THE COT THE COT THE COT THE COT THE COT THE COT THE COT THE CO	 	K	^	A	A  ======	A  =====
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- 22 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2		-	_====	-	****		
	İ	1	D<1yr	D>1yr	D<1yr	D>1yr	
CERAMIC TILE	Pfr	Min	1	1	İ		
	!			R<45d	,		ĺ
					Participation and	****	l
Inspect for:		 	ļ		 	   ======	
Cracks, chips, & holes	D/P/R	1	=====	X	<b>===</b> ==	======	1
Cracks, chips, a noies	I R	•	) ^	<b>^</b>	i x	l X	
		i R	l x	i x	Ϊ́х	i x	1
Description upon 1864 these person during states based							i
Surface abrasion, wear, &	D/P/R	j	j x	X	İ	<u>.</u>	ĺ
gouges	l R	1	Ì		X	! X	l
	!	R	l X	X	l X	X	ĺ
The state of the s							l
Staining & discoloration	R	R	ļ X	X	ļ X	X	
] 	] 	 	1	{ 	! !	j i	l l
made does made from hoping gard more haden before dayle stress made made made made made have gape have dayle start, apply region total million made	! 	 	 	 	 	 	l
Loose tile	D/P/R	Ì	i x	х	İ		l
	R	Ì	İ		i x	Х	l
	İ	R	j x	X	X	X	
and that the next plan and that has age that the plan page and the said and the sai							
Broken or missing tile	D/P/R	•	X	X			l
	l R	1	,		X	X	1
	 	R	X	) X	X	X	1
Loose, broken or missing	D/P/R		X	X	 	— — —   	i
grout	i R	1		•	x	x	l
l <sup>-</sup>	į	R	X	Х	X	X	ĺ
							ĺ
	D/P/R	•	X	X	X	X	ļ
penetration		D R			X		ĺ
 	•	D/P/R		Х	<u> </u>	X	l
自 12 12 12 12 13 12 13 13 13 13 14 15 15 15 15 15 15 15 15 15 15 15 15 15		zinene.			=====	=====	1

	1	=====	=====		====		ļ
M&R activities as required:	 	 	   =====		   ====	<u> </u>	ļ
Repair or replace damaged	D/P/R	•	=		==== 		1
lareas	R		İ	1	x	i x	i
!	İ	R	X	x	X	X	İ
Regrout loose tile	D/P/R					 	
	R		 		l x	ĺх	1
	İ	R	Х	X	х	X	Ì
Replace broken or missing	D/P/R					<del></del> 	 
tile	R		i		x	i x	i
		R	X	Х	×	X	İ
Replace loose, broken or	D/P/R		X		******		
missing grout	R	<u> </u>	j l		X	Х	į
	 	R	Х	X	х	х	İ
Clean surfaces	R	R	X	X	X	x	
;     ==================================		 					

	=====				=====	
İ	j		D<1yr	D>1yr	D<1yr	D>1yr
CARPET	Pfr	Min				1 75 45 3
	 	  =====	•	•		R>45d
Inspect for:			=====================================	 		 
	====	=====		-	   =====	-
	D/P/R	į	X	l X		ĺ
& raveling	l R	•			X	X
	i !	R	X	X	X	l X
Wrinkles	D/P/R		X	X	1	 
	R	1	<u> </u>		x	x
	Ì	R	X	X	X	X
Staining & discoloration	D/P/R   R	1	X	l X	   X	l ! X
! !		l R	l x	ĺΧ	X	X
Dampness; rot	D/P/R		X	X	X	X
	!	D R		ļ . <u>.</u>	ļ X	]
 	 	D/P/R	 	X	 	X
Insect infestation	D/P/R	, 	X	l X	X	X
		D R		i	X	<del></del>
l	1	D/P/R	ĺ	X	ĺ	X
Locate source of moisture						
notate source of moisture      penetration	[D/P/K	I IDR	X   X	X	X	X
, porte or a creation	i	D/P/R	,	l x	A	x
	•	=====	=====		=====	=====
M&R activities as required						
Repair or replace damaged	D/P/R	•	====   X	=====   X		
sections	I R		( ^ 		X	X
	i	R	х	Х	X	X
Restretch	D/P/R	:	X	X	1	
	l R	l I R	   X	l X	X     X	X     X
	 				<u> </u>	_ ^ 
Remove damp, rotten	D/P/R	j	X	Х	Х	X
sections & replace		D R			X	
	 	D/P/R		Х		X
Eradicate insect	D/P/R	<del></del>	X	X	X	
infestation		D R		45	X	•
		D/P/R		X i	i	x
Clean surfaces						
Clean Surfaces	R	R	X	X !	Χļ	X
j			l İ	 	]	) 1
	=====	====	=====		=====	=====

		*****	Mar 102 252 252 25.3			
BASES: VINYL, METAL, WOOD, STRUCTURAL GLAZED TILE, & CERAMIC TILE	   Pfr 	Min	D<1yr    R<45d	D>1yr    R<45d	D<1yr    R>45d	D>1yr     R>45d
Inspect for:	į	İ	Ì	į	İ	į
Cracks, splits, & holes	D/P/R		X	======   X	İ	
	i R	l R	l x	i x	X   X	i X
Sags & warp	D/P/R		X	X		
	l R	R	i x	i ! X	X   X	X     X
Chips & gouges	D/P/R		X			
	R 	l R	x	×	X   X	X   X
Staining & discoloration	R	R	X   X	X   X	X	X
Rot.	  D/P/R 	      D R  D/P/R		     X   X	   X   X	X 
Loose, broken, or missing	  D/P/R		   X	<del>-</del>		 
sections	l R		i -	x	i x I X	X X
	  D/P/R		   X	   X	 	<b></b>   
grout	l R	   R	   X	X	X X	X
Insect infestation	  D/P/R	•		X		   X
	•	D R		X	X 	   X
Locate source of moisture penetration	  D/P/R 	    D R	X   X	X	   X   X	<b></b>     X
	İ	D/P/R	İ	X =====	)  ===n=	X =====

M&R activities as required:	i	i :	Ϊ	j	ĺ	====	ļ
•			Ţ	1	*****	=====	
Repair or replace damaged  areas	D/P/R	•	l X	X	ļ		ļ
dieds 	R	l R	   X	X	X   X	X X	
Replace rotted sections	D/P/R	•	X	x	X	X	
 	! !	D R  D/P/R	,	X	X 	l I X	
Readhere loose sections	D/P/R	•	X	X			 
	R !	R	X	l I X	X   X	l X	1
	D/P/R		X				
sections	R 	R	X	X	X   X	X   X	 
Replace loose, broken, or	D/P/R		X			 	 
missing grout	l R	   R	   X	   X	X   X	X   X	
Eradicate insect	  D/P/R	 	x	x	·	   X	
infestation	 	D R   D/P/R		   X	X	   X	
Clean surfaces	   R	   R	X				İ
			     ======				

### GENERAL BUILDING TYPES

### INTERIOR CONSTRUCTION - CEILINGS

NOTE:

D = Deactivation P = Periodic

Pfr = Preferred

Min = Minimal

R = Reactivation

yr = year d = days

				zensz	1	2====
CONCRETE CEILINGS	   Pfr	   Min	Ī			D>1yr  
		 	R<45d	R<45d	R>45d	R>45d
Inspect for:						
Cracks & holes	D/P/R	=====	X	X		=====
· }	R	   R	   <b>X</b>	l X	X   X	X     X
Spalling & scaling	  D/P/R	 	   X		 	1000 000 000 000 000 000
	R	•	)   <b>X</b>	i x	i x	X
						!
Staining & discoloration  & mildew 	R   	l R l	<b>X</b>   	) X   	<b>X</b>   	X   
  Exposed reinforcing	  D/P/R		   X	   X		   X
	 	D R		x	X	x
Damaged expansion joints	D/P/R	•	   X	X	   X	   X
	,	D R  D/P/R		X	X   	
Surface coat damage	   D R	  D			   X	
	D/P/R	D R	 	X		X j
Locate source of moisture	D/P/R	 		i	   X	i
penetration		D R	x	i	x	j
	u a e e e e	D/P/R	=====	X	=====	X

-						
M&R activities as required:		 	   =====	   ********		
Repair cracks & holes	D/P/R	1	X	X	======	=====
	R	•			X	X
		R 	X 	X 	X 	X 
Repair spalled or scaled	D/P/R		X	X	į	į
area 	R 	l I R	   X	   X	X   X	X   X
Clean rebar & adjacent	D/P/R 	D R	X	X 	X	X 
patch area	İ	D/P/R		X	i	X
Replace rebar; clean	D/P/R	•	X	×	X	X
adjacent concrete, patch  area		D R  D/P/R	,	) ,   <b>X</b>	X 	l X
Deserted and a second and a second						
Repair expansion joints	D/P/R 	IDRI	X   X	<b>X</b> 	X   X	X 
	į	D/P/R		x		Х
Clean surfaces	R	R	X	X	X	X
	ļ 1	<u> </u> 	1		<u> </u>	 
Duana a galak augsara						
Prepare & paint surfaces	D R		<b>X</b> 	X	<b>X</b>	! ! X
 	1					į
			====	=====		

		***			****	
SUSPENDED METAL CEILINGS	   Pfr	Min	ĺ	_		D>1yr
		 	•	R<45d		R>45d
Inspect for:		, 				 
			I — — · · · · · · · · · · · · · · · · ·	***		
Holes, dents, & gouges	D/P/R   R		X	X	)   <b>X</b>	i ! i
i I		, R	x	х	X	Î Â
  Staining & discoloration 	   R 	   R 	   X 	   X	X	   X   
			 			******
Corrosion	D/P/R	•	X	X	X	x
		ID R  D/P/R		x	X	×
Warp; loose sections	D/P/R			X		 
	R	l l	l X	   X	X	X
Surface coat damage  - 	D R  D/P/R 	D R  D/P/R 		x	X   	   X
Locate source of moisture	  D/P/R		   X	X	   X	   X
penetration		D R	7		X	į į
医乳腺 医复数复数医腹膜 医腹膜 医腹膜 医皮肤 经货货 经收益 化二甲基苯甲基	   ======	D/P/R		X		X    =====
M&R activities as required:	;   	Í				
Replace sections	D/P/R	•	X	X		38655
•	R	:			Х	xi
		R	X	X	X	X
Remove corrosion	D/P/R	•	×	X	x	x
	! !	D R   D/P/R		X	X	   <b>X</b>
*** *** *** *** *** *** *** *** *** **						
Clean surfaces	R   	R	<b>X</b>	X	X	<b>X</b>   
Prepare & paint surfaces	  D R	D R				    
	D/P/R			x	••	х
光 电对阻 医甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基		****	wasse	红斑细细醇	33 15 16 16 16 16 16 16 16 16 16 16 16 16 16	**************************************

供水流性性性性型性性					****	****	
GYPSUM BOARD CEILINGS	İ	Ì	D<1yr	D>1yr	D<1yr	D>1yr	ĺ
& &	Pfr	Min	   D < 4 E &	   D = 4 E = 1	  R>45d	   D > 4 E m	
PLASTER CEILINGS		   markso	ひこをノスト	四本本書書	K245C	-	1
Inspect for:	i.	İ	İ	j	İ	•	İ
	====================================		#####	単独な主義権			
Cracks, holes, & gouges	D/P/R   R	•	l X	! <b>X</b>	' X	l X	
İ	į	j R	x	x	X	X	į
Staining & discoloration	   R	   R					
	ì		ļ. <b>A</b>			, n	ĺ
	!				!		į
Moisture damage (including	ID/P/R		X	X	~~~~* 		
sugaring)	R	1		j	X	×	ĺ
	1	R	X	X	X	X	
Sagging	D/P/R		X	X		]	
	R	•	,		X	X	Ì
	 	R	X. 	X	X	X	
Surface coat damage	D R		X		X		ĺ
<u> </u>	D/P/R	DR	<b>[</b>	X		) X	
The state of the s	 		 		 		l
	D/P/R	•	X	Х	X	Х	ļ
penetration	{ 	ID R ID/P/R	) <b>X</b>	l I X	X 	x	
THE THE TEST WAS SET ONE TOO TOO TOO TOO TOO TOO TOO TOO TOO TO			***********	maner			ĺ
M&R activities as required:	 	l lamans		 			
Patch cracks, holes, &	D/P/R	•	X	X			
l gouge <b>s</b>	R	•		.	X	X	ļ
. And this time time time time time time time time		R	X	X	X	X	1
Repair moisture damage	D/P/R		X	X	i		İ
1	R	l I R	 	   X	X X	X   X	
			~~		_ ^ 		1
Reattach & plaster	D/P/R		×	×	1		1
[ 	l R	R	   X	X	X X	X	
Clean surfaces	R	K	X	X	Х	X	ĺ
							ĺ
	D R   D/P/R		X	   <b>X</b>	X	X	
		اع <i>د</i> ا	i	, A	! !	Λ (	i
具定体化的 法非正式 化苯基苯基苯基苯基苯甲基苯甲甲苯	**====	BE RE SE SE SE	wana a			*******	

ACOUSTICAL CEILINGS	)   Pfr	   Min	D<1yr	D>1yr	D<1yr	D>1yr
			R<45d	R<45d	R>45d	R>45d
Inspect for:		i	     ======		=====     =====	   
Cracks, holes, & gouges	D/P/R	i	X	X	i	
	R	R	X	x	X	) X   X
Staining & discoloration	   R	:		X	X	   X
and the second of the second o		Tanana Tanana	]. 	<b>!</b>		.   
Warp; loose sections	D/P/R		X	X		
	R	R	X	X	X   X	X
Broken or missing sections	D/P/R		X	X		
	R 	l R	×	i X	X   X	X   X
Misaligned trim	D/P/R	•	X	X		
	R	R	   X	X	X	X
Corroded or damaged trim	D/P/R	•	X	X		<b></b>
		l R	X	X	X	X /
Moisture damage	D/P/R	l ID R	X	X	X	X
	-	D/P/R		X	) <b>X</b>	x
Locate source of moisture	D/P/R		X	X	X	
penetration	!	D R  D/F/R		х	<b>X</b>	X
· · · · · · · · · · · · · · · · · · ·					20 20 20 20 20 20 20 20 20 20 20 20 20 2	

M&R activities as required:		=====	 	==== <u>=</u> 	<b></b>	
Replace damaged sections	D/P/R	R	X	X   X	X	X X
Remove damaged sections		    D/P 	X   X	   X 	   	     X
Adjust tiles & trim	    D/P/R   R	       R	     X   X	    - X 	     X   X	       X   X
Remove corrosion from trim & paint	  D/P/R   R	     R	   X   X	X   X	     X   X	     X   X
Clean surfaces of trim	R	   R 	   X 	   X 	   X 	   X
医乳性坏坏性 经非正常 医甲基苯基甲基 医红色 计元代码 经证证 医				   <b>=</b> ±===	   =====	

	1		1			1
<b>建設 建基础 医自然性 医腹膜 医腹膜 医皮肤 经证明 医胆管性</b>		~==== 	D<1yr	D>1yr	D <lyr< td=""><td> =====  D&gt;1yr</td></lyr<>	=====  D>1yr
EXPOSED CEILING INSULATION	Pfr	Min	   R<45d	   R<45d	  R>45d	  R>45d
THE RES AND THE PART HE SHE THE RES AND THE RES AND THE RES AND THE RES AND THE RES. THE RES.						京川田田田
Inspect for:		 	   == == == == == == == == == == == == ==			
Wet insulation	D/P/R	i ID R	X	X	j X I X	Х
		D/P/R		X	^	X
Loose or missing insulation	R	R		   X		~~~~   X
en en en e	 	:		N	<u> </u>	 
	D/P/R	•	X	X	X	X
penetration	1	D R D/P/R	, ~-	! ! <b>x</b>	X 	×
M&R activities as required:						
Remove & replace wet insulation	D/P/R	•	X	X   X 	X   X 	X   X 
Remove wet insulation					   X	
	<u> </u> 	D/P	<u> </u> 	X	 	X 
Resecure loose insulation	   R	R	X	   X 	   X 	
Replace missing insulation	     R	      R		   X	     X	   X
计引送性 法禁止行行 化乙酰胺 经现代 医乳腺 医乳腺 医乳腺 化二苯基苯基	Met 300 100 100 100	 				

### GENERAL BUILDING TYPES

# INTERIOR CONSTRUCTION - DOORS

NOTE:

D = Deactivation

P = Periodic

R = Reactivation

Pfr = Preferred

Min = Minimal

yr = year d = days

型公司 经延迟 经租赁 医皮肤 医耳根 医眼 化苯酚 医甲甲基苯酚 化			=====		***	
HOLLOW METAL DOORS & FRAMES	   Pfr	i   Min	D<1yr	D>1yr	D<1yr	D>1yr
STEEL DOORS & FRAMES			R<45d	R<45d	R>45d	
Inspect for:						ĺ
Cracks, holes, dents, &	D/P/R	}	X	X		******
dondea	R	l I R	   X	X	X X	X   X
Surface abrasion & marring	D/P/R		~~~~	   X	 	
	R	l I R	l I X	X	X X	X   X
Stains & discoloration	R	   R	X   X	X	   X 	   X 
Malfunction & misalignment	    D/P/R	· · ·   · ·   · · · · · · · · · · · ·	     X	     X		   
	R	   R	   <b>X</b>	   X	X   X	X   X
Corrosion	D/P/R	•	X	X	X	X
		D R		x	X	I İ X
Surface coat damage		D R	•		x	
	D/F/R 	D/P/R  	 	X		<b>X</b> 
计电报 化两角芽菜 表现决决 经售价推定 岩割的山南沿岸自身目	***	****		=====	=====	

M&R activities as required:						
Patch cracks, holes, dents,  & gouges	D/P/R	R R	X	X	X   X	
Adjust alignment	  D/P/R   R	     R	X   X   X	X   X   X	X X	   X     X
Repair or replace doors &	D/P/R	     R	X	X   X	   X   X	X X
Remove corrosion	  D/P/R 	     D R     D/P/R		X   X	   X   X	
Clean surfaces	R	   R   	   X 	X	   X 	x
Prepare & paint surfaces	   D   R	R R	   X	X	X	     X   

医乳球状腺性性神经炎性性神经性性神经性性	-			BE 300 300 MA BOL	***	おおきはま	
1	1	ĺ	D<1yr	D>lyr	D<1yr	D>1yr	
METAL & GLASS DRS & FRAMES	Pfr	Min	1		ļ		
	1	ļ.		•	•	R>45d	
				22年 22 末間		=====	
Inspect for:		 		!	1		
Cracks, holes, dents, &	D/P/R	1	=====   X	== = = = = = =			
gouges	l R	•	^ 	! ^ !	i x	X	i
l	1	R	ı x	i x	i X	X	i
							i
Surface abrasion & marring	D/P/R	i	i x	x	ĺ		
	R	:	ĺ	j	X	X	
	ļ	R	X	X	X	Х	
Stains & discoloration	R	R	X	X	X	X	
1			!				
 	1	l	 	ļ 1		] 	
Malfunction & misalignment	ID/P/R	i	X	X			i
	R		i ^	, ^	X	x	1
	i "	i R	i x	x	X	X	
Corrosion	D/P/R	ĺ	X	X	X	X	1
1	<b>!</b>	D R			X		
		D/P/R		X		X	
							l
Cracked, broken, or  missing glass	D/P/R	•	X	X	X	X	
lurasing drass	 	D R  D/P/R		   <b>X</b>	X	\ <b>X</b>	l L
 	 	D/ E / K	! 		! ]	X 	i
  Surface coat damage	D R	D R	X	- : <del></del>	X	<b>-</b>	ĺ
	D/P/R		,	X	1 12	X	
1	i	, -, -, -, -,	ĺ	, <u>, , , , , , , , , , , , , , , , , , </u>		•••	ļ
"我们就是我们的自己的,我们就是我们的自己的,我们就是我们的	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	R::22 27 22 ==	_=====	.====	=====		

	=====					
M&R activities as required:	   ***********************************		   #####	 	 	
Patch cracks, holes, dents,	D/P/R		X	X		
& gouges	R	•	<u>.</u>	<u> </u>	X	X
سي سي درس بيدر بيدر ميدر البنيد بنيد بنيد بنيد المدر سيد ويط ناسه راحه الكند العدر الكند سيد بنيد المدر الكند العدر العدر الكند الكند العدر العدر الكند العدر العدر الكند العدر العدر الكند العدر العد		R	X	X	X	X
Repair or replace doors &	D/P/R	İ.	x	i x	}	
frames	l R	]	!	!	X	X
	 	R	X	X 	X	X 
Remove corrosion	D/P/R		X	x	x	X
	ļ	D R			X	l
	! 	D/P/R	 	X 	 	) X
Clean surfaces	j R	R	х	х	X	х
	 	 		 	[    -	 
Prepare & paint surfaces	  D R	  D R	   X			
ricpare a parite surfaces		D/P/R		Х	^	х
		ļ				
Replace cracked, broken,	D/P/R		X	X		
or missing glass	R	i i			х	х
	 	R	X	Х	Х	X I
If cracked, broken, or	D/P	<b></b>   			X	X
missing, board up opening	j	ו ס	X		X ·	
	 	D/P		X		X
			_=====			

建二氯化乙基甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基甲							
WOOD DOORS & FRAMES	Pfr	   Min	D<1yr	D>1yr	D<1yr	D>1yr	ĺ
•	i	i			R>45d		٠.
neverementable variation   linspect for:		j	i	i	i	=====	  -
	D/P/R		=====   X	=====   X	=====	=====	ļ
	R	İ	i	İ	l x	X	1
		R	X	1 X	X	X 	1
Surface abrasion & marring			×	i x	<u> </u>	į	ļ
len er en er en en en en en en en en en en en en en	R	R	<b>x</b> '	x	X   X	l X l X	1
Malfunction & misalignment		7	X	X			1
	R	l R	ļ x	X	X ! X	X X	
Warp	D/P/R			X	 		1
	R 	   R	l X	l I X	X   X	l X l X	
Rot	  D/P/R				   X	   X	
	1	D R D/P/R		   X	<b>X</b> 	   X	
Staining & discoloration	   R	R	   X	X	x	   X	1
	 	   ! ======	   	   	 		
Insect infestation	D/P/R		X	X	X	X	
		D R		   X	<b>X</b> ·	X	 
	D   R		   X	 	   X	~~~~	 
	D/P/R  	D R		X		Х	Ì
计时记录记录 医阿里氏 化甲基苯甲甲甲甲甲甲甲甲甲甲甲甲甲甲甲甲甲甲甲甲甲甲甲甲甲甲甲甲甲甲甲甲甲甲甲				====			ί

M&R activities as required:	===== 	===== 				****
Patch cracks, holes, & gouges	D/P/R	İ	X	=====    X 		X
		R	X	X	X 	X
Repair damaged surfaces	D/P/R	:	X	<b>X</b>	i I x	i I X
   		R	X	X	X	X
Repair or replace doors &	D/P/R		X	X	X	x
		R	X	X	x	Î Â
Adjust alignment	D/P/R		X	X		
	R 	R	X	<b>x</b>	X   X	l X
Replace rotted doors	D/P/R		X	X	X	X
и .	.	ID R ID/P/R		.   <b>X</b>	<b>X</b> 	x
Eradicate insect	D/P/R	•	X	X	X	X
infestation	<u> </u>	ID R  D/P/R	,	   <b>x</b>	<b>X</b>  -	i x
Clean surfaces	R	   R	X			X
		 	 	 	<del> </del> 	! !
Prepare & stain or paint	  D R			 		 
surfaces	D/P/R	D R	 	X 	 	l X
计时间的现在分词形式设置设计设计设置设置设计设计设计设计			****	====	*****	****

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		304	D<1yr	D>1yr	D<1yr	D>1yr
GLASS IN DOORS	Pfr   	Min	  R<45d	  R<45d	R>45d	R>45d
非性性性 医维朗斯斯氏征性神经纤维 美美美国田林伊尼西林		****		***	***	
Inspect for:			****		cenec	   <b>   </b>
Cracked, broken, or	D/P/R	•	X	Х	X	Х
missing glass		D R		X	X	   X
The last took took took took took and took took took took took took took too	) 					
• - • • • • • • • • • • • • • • • • •	D/P/R	•	,	X	X	X
missing seals or gaskets	•	DR D/P/R		X	. <b>.∧</b>	) X
 	**************************************			(株別学学院)	ummen.	
M&R activities as required:		, 		 		
	D/P/R	*********	l X	i X	=====	****
Replace cracked, broken, for missing glass	D/F/R	 	1	^	X	x
		R	. <b>x</b>	×	X	X
If cracked, broken, or	D/P	 		<b></b>	~	
missing, board up opening	-	מוֹ	i x	i	i x	i
	į	D/P		į x	į	į x
Replace cracked, broken, or	D/P/R	 	X	X	 	
missing seals or gaskets	R		İ	İ	j X	įΧ
	į	R	X	į X	X	X
If seals or gaskets are	D/P	1		 		X
cracked, broken, or		ai	x	i	X	i
missing, board up opening	İ	D/P	İ	j x	İ	j x
	====	****	***		=====	

the Cal was and and had any life had the major for the life had the life the life was the life of the life and the life an					=====   D<1	
LOUVERS IN DOORS	   Pfr	Min	_	·	D<1yr  	-
	 		R<45d	R<45d	R>45d	R>45d
Inspect for:				<u> </u>	İ	
Cracks, chips, holes,	D/P/R		X	X		
dents, & gouges	R	 	X	   X	X   X	X X
Malfunction & misalignment	D/P/R	: .	X	x		
	R 	l R	×	X	X	X X
Broken or missing sections			X	X		
 	R 	   R	   X 	   X 	X   X	X   X
Corrosion	D/P/R		X	X	X	X
	!	D R D/P/R		X	X	ı x
		D R		     X	X	     X
M&R activities as required:						
Patch cracks, chips, holes, dents, & gouges	D/P/R		į <b>x</b>	X	i I x	i I <b>X</b>
dents, a gouges		R	x	x	Î	Î
Repair damaged surfaces	D/P/R	-	X	i X		
	R	l I R	)   X	ı x	X   X	X
	D/P/R		X	X		
or sections of louvers	R 	   R	   X	)   X	X   X	X   X
Remove corrosion	D/P/R	 			   X	   X
		D R	X	X	i x	X
Clean surfaces	R		Х	 Х	   X	x
		1	1	i	ı	
		D R			      X	

と 精神を強い

12 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2			*****		-	2222
	İ	j	D<1yr	D>1yr	D<1yr	D>1yr
DOOR HARDWARE	Pfr	Min	1	}		
1	!	,		•	R>45d	
中国   日本   日本   日本   日本   日本   日本   日本   日	======	maran :::		m = 1 = 12 = 12	en er he en er	
Inspect for:	 		l Israelmusemu	 		
•	D/P/R	•	X	X	X	X
1	•	D R	X		X	i - i
i	1	D/P/R	İ	X		X
• • • • •	D/P/R	?	X	X		1
components	l R	l IR	l l X	! <b>X</b>	X I X	X
	   <b></b>	K	A 	) A	^ 	A
Corrosion	D/P/R	i i	l x	i X	i x	x
	,	D R	j $\hat{\mathbf{x}}$		X	i i
1	l '	D/P/R	1	X		X
Malfunction & misalignment			X	X		
	l R	l IR	1   X.	i X	X   X	i Ai
			,	, ,,		
M&R activities as required:	i	i	<u>.</u>	į		
	,	•	*****			
Oil hinges	D/P/R	•	l X	į X	X .	X
	1	D R			į X	
 	. 	D/P/R	! !	X	! !	X
Repair or replace	D/P/R	1	X	X		<b></b>   
components	l R	•	ì		Х	i x
	i	R	İΧ	x	X	i x
with this top of the same case with the case the case that the case the cas						
Remove corrosion	D/P/R	•	l X	X	l X	X
	ļ	D R			X	ļ <u>.</u> !
	 	D/P/R	•	X  ======	 	X
	1	=====				=====

D<1yr D>1yr D<1yr D>1y
Inspect for:
Loose caulk
Loose caulk
R
Broken or missing caulk
R X X X X   X   X   X   X   X   X   X
R X X X X   X   X   X   X   X   X   X
Eroded caulk
RIIXX
'
M&R activities as required:
Remove loose, broken, &   D/P/R   X   X
eroded caulk R X X
R X  X  X  X
Clean surfaces & recaulk   D/P/R   X   X
R

# GENERAL BUILDING TYPES

### INTERIOR CONSTRUCTION - SPECIALTIES

NOTE:

D = Deactivation

Pfr = Preferred

Min = Minimal

P = Periodic R = Reactivation

yr = year d = days

	1.		D<1yr	D>1yr	D<1yr	D>1yr	
METAL TOILET PARTITIONS	Pfr	Min	<b>-</b>				l
		1	R<45d	R<45d	R>45d	R>45d	ı
	******					FREEZE	l
Inspect for:	!	!					į
	1	ı	t .	X X	==:====	2222	i I
	D/P/R   R	 	X	Α	x	   X	l
dents, & gouges		l R	i x	X	X	X	į
الله الله الله الله الله الله الله الله							i
Corrosion	D/P/R		X	Х			ĺ
1	į R	:	ĺ		X	X	ĺ
		R	<b>X</b>	X	X	X	ĺ
and the real time to the state and the real time and time and got the time and the real and the state and time and time and							l
Loose, broken, or missing			X	X	, ,	1 0	1
supports or hardware	R	l I R	i I X	l I X	l X l X	) X   X	l
ينوة فقلة دنون وبنت فقلت نوبية اجتلة فين نوبه اجتلة وبن سير بنطة فإض ينها كون حين فينة اجدن دوبة وجن فينت نيبن		K	^ 	^ 	^ 	^ 	I
Surface coat damage	lo R	D R	X	1 ]	X	i İ	1
	•	D/P/R		i x		X	Ì
	į	İ				İ	1
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<b>医自己性医性性囊炎性性性性血管性性性性炎炎性性炎性炎炎炎炎炎炎炎炎炎炎炎炎炎炎炎炎炎炎炎炎</b>	****			***	****	n
M&R activities as required:		ļ			ļ	
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Repair cracks, chips,	D/P/R	1	, X	X	1	
holes, dents, & gouges	R	ļ.			X	X
•	1	R	X	X	X	X
Repair or replace sections	ID/P/R					 
	R	ì	i	<u> </u>	i x	i x
	į -	R	X.	х	x	x
Remove corrosion	D/P/R	   .				
Vewgae Cottoaton	R	7	1 A	A	l x	x
	1 5	l R	X	X	X	I X
مب برو جات مد شرع بیاد اثنان کے ایک ایک ایک ایک اس اس میں یہ اس بی بی اس بی سے ایک ایک			^ 	^ 	A	^   
Resecure or replace	D/P/R		X	X	1	
supports and hardware	R	:			X	x
	į	R	Х	х	X	X
Clean surfaces	R	   R				
order sarraces	•			<b>^</b>	<b>.</b>	^
· · · · · · · · · · · · · · · · · · ·	1				}	
Prepare & paint surfaces	D R	ID R		 		
		D/P/R		x	,	i x
		1	ĺ		İ	İ
<b>电影 医克里斯 医克里斯 医克里斯 医克里斯 医克里斯氏 医克里斯氏 医克里斯氏 医克里斯氏 医克里斯氏 医克里斯氏 医克里斯氏 医克里斯氏 医皮肤 医皮肤 化二甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基</b>			医异异异氮			=====

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计算机计划机构设备的设备的现在分词 医克拉氏试验检试验		lesses	<b>===</b> ==		lesses	
			D<1yr			
TOILET & BATH ACCESSORIES	Pfr	Min				
	ĺ		R<45d	R<45d	R>45d	R>45d
************	=====	=====	====	====		
Inspect for:	1 .	1	1			1
		•	•	•	=====	=====
	D/P/R	:	į X	l X		
dents, gouges, &	R	•	!	ļ ,	l X	X
deformation		! R	X	X	X	X
Corrosion	D/P/R		i x	X		<b></b>
COLLOSION	R	• .,	<u>^</u>	<b>^</b>	i x	X
•	1	i R	i x	' צ	i X	X
Loose fit	D/P/R	j	X	i x	Ì	j
	R	Ì	Ì		X	X
·		l R	X	X	X	X
	D/P/R	•	X	ļ X		,
accessories	R			' <b></b>	X	X
		R	X	X	X	X
Malfunction	D/P/R	<b></b>	i X			
Mailunction	R	7	^	1 <b>4</b>	X	)   X
ı	, . <b>`</b>	R	i x	i x	X	X
化阻抗性抗抗性 医神经性性 医神经性 计计算机 医神经性		***		10 15 E E E		=====
M&R activities as required:	j	j	j	Ì	ļ	İ
<b>新国性的计算部位对对基础的对对对对对对对对对对对对对对对对对</b>	1	1		=====	=====	=====
Repair or replace	D/P/R		X	X		
accessories	R		ļ.		X	X
	]	R	i x	X	X	X
Remove corrosion	D/P/R	<b></b>				
Remove Corrosion	D/P/R	-	, A	l X	! ! •	   •
		ı IR	' X	   X	X   X	X   X
				^ 	^ 	^ 
Secure fit	D/P/R	i I	ı X	ΙX	! 	, – I
	R			 İ	x	X
	j	R	х	x	X	X .
شبع مين بين بين الله الله الله مين الله مين الله الله الله الله الله الله الله الل						
Clean surfaces	R	R	X	X	X	X
				l	ĺ	
	=====	====	***	====	=====	

		表表面面影	-		====	
   METAL WALL LOUVERS	Pfr	   Min	•		•	D>1yr
İ	į	j	•	:		R>45d
Inspect for:	ĺ	3555	<b>本型和基块</b>	i .		mass===
cracks, chips, holes,	=====  D/P/R		=====   X	=====   X	##### 	===== 
dents, & gouges 	R	l R	   X	   X	X   X	X   X
Corrosion	D/P/R	•	X	X		
	R	R	   X	X	X   X	X
Loose, broken, or missing sections & fasteners	D/P/R		X	X	)     X	)     X
		R	X	X	X	X
Surface coat damage		D/P/R		X	X	)   X
计设计时间间间 医医肾 医皮肤 医苯甲基甲基苯苯甲基苯基甲基苯甲甲基苯甲甲基苯甲甲基苯甲甲基苯甲甲甲甲甲甲甲甲甲	ĺ	İ	ĺ	<b>U</b> ####		
M&R activities as required:	=====	   =====		22222		   =====
Repair cracks, chips, holes, dents, & gouges	D/P/R   R	:	<b>X</b>	<b>X</b>	   <b>X</b>	i x
وال على فينا على أنت بحد إلى حجم فين واله حمل فيها أنت عبياً عند عمل أنقط عبد أنت إلى الله 100 كتاب الله عبد ا والد على فينا على أنت بحد أنت بحد إلى الله على واله حمل فينا أنت عبداً على أنت أنت إلى 100 كتاب الله الله عبدا		R	X	X	X	X
Repair or replace sections	D/P/R	•	X	Х	×	i I X
يود ويور يويد ليود بيود ولاي الله الله منه أدان يود حته بيود حته بيود بيود بيود بيود والله والله الله الله		R	X	X	X	X
Remove corrosion	D/P/R	:	х	х	X	j I X
چو جين پين جي ايس سا شد عد چه پيدا ئين به امير ييا الله جي جه شد عدا ده به جه جي جه سا سا سا		R	X	X	X	X
Resecure loose fasteners	D/P/R		x	х	X	) 1 X
سے میں میں میں اس اللہ بدنہ بیٹ بدن میں سے سے جب سے میں اس مال اللہ اللہ اللہ اللہ اللہ اللہ اللہ		   R	X	X	X	X
Replace broken or missing sections & fasteners	D/P/R		х	X		
		R	X	х	X X	X
Clean surfaces	R	R	X	X	X	X
Prepare & paint surfaces	D R	D R   D/P/R		x	X į	' х ј
<b>以行为行员政治和政治的政治的政治的政治的政治的政治的政治的政治的政治的政治的政治的政治的政治的政</b>	=====	and part man you have:	 	=====	=====	======

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			=====  D<1yr			
   METAL GRILLES & SCREENS	l   Pfr	   Min	I IDZIĀT	Darat	l Incilia	l nortat
METAL GRILLES & BONELING	1	•	R<45d	R<45d	R>45d	R>45d
	=====	====	=======			
Inspect for:	[	İ	!		ļ	
	•	•	•	•	=====	
Cracks, holes, dents, &  gouges	D/P/R   R	:	X	X	l l X	   <b>X</b>
l gouges	1	i R	X	i x	X	X
nes que seus mas mas sons lons latin dats mad i di dats blas mills que more dem days petro des mas mas mas sons latin dels best		i				
Corrosion	D/P/R	1	X	X	1	
·	l R	•	]	ļ <u>.</u> .	X	X
 	 	R	X	X	X	X
Loose, broken, or missing	D/P/R	<del></del>	X	X	 	l —————
sections & fasteners	R		,		i x	X
	İ	į R	į x	, <b>x</b>	X	X
Surface coat damage		D R		1	X	[ i <b>v</b>
·	D/P/R	ID/E/K	} 	) X	 	X
	   ===================================	   ===================================	 	∖ │≠≠≈≈≠	  ======	   ======
M&R activities as required:		j.	i	İ	i	1
			=====	=====	=====	=====
Repair cracks, holes,	D/P/R	:	X	X	ļ	1
dents, & gouges	R	:		1	l X	X
{ 	 	R	) X	X	X	X
Remove corrosion	D/P/R	1	i x	X	 	 
	R	•		i	i x	X
		R	X .	X	X	X
					***	
Resecure loose fasteners	D/P/R	:	l X	l X		   •
	l R	l R	i x	l J X	} X ! X	X   X
				:		
Replace broken or missing	D/P/R	ί.	X	i x	ĺ	
sections & fasteners	R	ł	1	Į.	X	X
	!	R	l X	X	X	X
Clean surfaces						
Crean Surraces	l R	R	l X	) X	X	) X
\$ 		! 	<u> </u>	, 	! 	 
فدة داخة يسو دون بالد خال المراجعة المر	i					
		D R		Ì	X	
	D/P/R	D/P/R	1	Х		X
	 		!			
	12 12 12 12 12		====	wanta	******	=====

	=====					====   D>1yr
IDENTIFYING DEVICES:   BULLETIN BOARDS, INTERIOR   SIGNS, DIRECTORIES, ETC.	Pfr	Min	j -	<u> </u>	1	D>1y1  
	=====					
Inspect for:			 			
Cracks, chips, holes,  dents, & gouges	R   I	•	•	   X 	X 	X     X     ·
Corrosion	   R	   R		X	   X	   X
Loose; broken, or missing    sections & fasteners	R   	R	<b>X</b>   	) <b>X</b>   	X     	X       
Surface coat damage	   R	   R	   X 	   X	   X 	   X   
	•	  =====	  =====		===== 	  =====
M&R activities as required:		 	i !	 	 	 
Repair cracks, chips,  holes, dents, & gouges	R	!	!	X	X	X     X
  Remove corrosion 	   R 	   R 	   X 	   X 	X   X 	X     X   
  Resecure loose fasteners   	   R 	   R 	   X 	   X 	   X 	<b></b>     X   
Replace broken or missing  sections & fasteners	   R 	R   R	   X 	   X 	   X 	   X
  Clean surfaces 	   R 	   R 	   X 	X	   X 	   X   
Prepare & paint surfaces	   R	   R	   X	х	 X	   X
	   ======	=====	  -====		=====	 

		1=====	1=====	1=====	=====	====
METAL LOCKERS	<b>;</b>	Min			•	D>1yr
METAL LOCKERS		i wii	R<45d	  R<45d	R>45d	  R>45d
Inspect for:	=====					=====   
	•	•		===== 		  =====
Cracks, chips, holes,  dents, gouges, &	D/P/R   R	-	l X	X	l ! X	
deformation	1	R	×	x	X	×
Corrosion	D/P/R				<del></del>	
	R	  R	) X	   <b>X</b>	¦ Х I Х	X
			i			
Loose, broken, or missing	D/P/R   R	:	į X	l X	   X	 
hardware		R	×	х	į x	į x
Surface coat damage	D R	D R	X	———— 	X	<del></del>
	D/P/R	D/P/R	<u> </u>	X	ļ	X
 		=====	 	  =====	  =====	  =====
M&R activities as required:	  =====	  =====	  =====	 	  =====	 
Repair cracks, chips,	D/P/R	:	į x	×	<u> </u>	i
holes, dents, gouges, &  deformation	R 	l R	l I X	   X	IX IX	X
Remove corrosion	  D/P/R					
	R		1 ^	) 	i x	) X
		R	X	X	X	X
	D/P/R		x	×	į	
supports, & hardware 	l R	l IR	l I X	l I X	l X ∣ X	IXI IXI
Density or wenters bushes						
Repair or replace broken or missing sections,	D/P/R   R	•	<b>X</b>   '	X 	l X	! ! ! X
supports, or hardware	 	R	X	X	) X	ј х ј
Clean surfaces	R	R	X	X	X	X
Dronana C naint surfaces				Min an est an est		
Prepare & paint surfaces	D   R	D R D/P/R	X i	X	X	
			١		=====	i j

	-	-				
FIRE PROTECTION CABINETS	Pfr	Min		1	-	D>1yr  
			作品を開発	=====		m====     1/5-20(
Inspect for:	į	į	į	į	į	i i
Cracks, chips, holes,	D/P/R		X	X		
dents, & gouges	R		^	^	x	i x i
		I R	X,	ļ X	X	į x į
Corrosion	D/P/R	1	: X	X		 
İ .	R	1	İ	j	X	i x i
		l R	X	X	X	X
Loose, broken, or missing	D/P/R		X	X		 
cabinets, supports, or	! R	•			X	i <b>x i</b>
linardware	 	R	X	X	X	X
Cracked, broken, or missing	D/P/R	į ·	i x	χ	}	, , !
glass	ļ R			ļ <u>.</u>	X	X I
	 	R	X	X 	X	X
Surface coat damage		D R			X	; } ;
į t	D/P/R	D/P/R	!	ļ×,	ļ	X
医多类性 化二氯甲基甲基苯甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基	= = = = = = = = = = = = = = = = = = =	== == == == == == = = = = = = = = = =	 			  ======
M&R activities as required:		į	į		į	i i
Repair cracks, chips,	D / P / R	************************************	=====   X		= <b></b>	=====
holes, dents, & gouges	R	:	j		х	ı x
 	1	l R	X	X	X	X į
Remove corrosion	D/P/R		X	X		
	R	İ			x	х
		l R	X	X	X	Х
Resecure loose cabinets,	D/P/R	 	X	X	<del></del>	
supports, & hardware	R	•	ļ <u>.</u> į	[	Х	X i
	 	R	X	X	X (	X
Repair or replace broken or	D/P/R		х	x i		
missing cabinets, supports,  or hardware	R		   X	v	X	X į
	 	R  	_ ^   	X	X	X
Replace cracked, broken, or			x	x	j	j
missing glass	l Ri	Ri	X	X	X   X	X
		j				
rrepare & paint surfaces	D R		x		х	i
		D/P/R	i i	X	}	Χļ
<b>计划 经股份 化双角 医抗腺素 计通过 计算 计 的 的 计 是 的 的 的 的 的 的 的 的 的 的 的 的 的 的 的</b>	****		====	====	 	=====

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STORAGE SHELVING	   Pfr	Min	  D<1AL	D>TAL	D<1yr	  D>TAT
STORAGE SHELVING			R<45d	R<45d	R>45d	R>45c
经利益 经工程 的复数 计自然 经经验 经经验 医胃炎 医乳腺素	22 12 12 12 12 12 12 12 12 12 12 12 12 1		*****			
Inspect for:					   ======	 
Cracks, splits, & holes	D/P/R		X	X	=====	<del></del> - 
Clacks, Spiles, & Holes	R	:	1	i	x	i x
· 6	İ	R	X	X	X	X
Dents, gouges, & chips	1:0/0//9			   X		
	IN R				x	i x
	i	i R	X	X	X	X
Sags & warp	D/P/R   R		<b>^</b>	<b>.</b> ^	l x	l X
		į R	X	i x	X	Х
				   X		
Corrosion	I R	•	. ^	]. A	X	l x
Control of the Contro		i R	X	i x	X	i x
100 pp) and have held have the stat dark pays and also are due have more than the same and made and that and made and the same and the				   X	   X	
Rot	D/P/R	D R	•	<b>.</b> ^	l X	i ^
		D/P/R		i x	i	Х
				   X		   X
Insect infestation	D/P/R	ID Ř	X	<b></b> .	X	
**************************************	,	D/P/R		x	i "	i x
Loose, broken, or missing shelving, supports, or	D/P/R	1	l X	X	   X	   X
hardware		R	Х	i x	X	X
Surface coat damage	D R		X	   X	l X	l I X
•	ID/F/K	ID R	 	1 A	1	1 <b>^</b>
			_=====	====		= = =

M&R activities as required:						
Repair cracks, splits, holes, dents, gouges, & chips	D/P/R	:	X   X	X	X	X     X     X
Remove corrosion	D/P/R R		X X	X	X   X	   X
Replace rotted sections	D/P/R	D R		X	X	X     X
Eradicate insect infestation	D/P/R	  D R  D/P/R		X	X   X	X     X
Resecure loose shelving, supports & hardware	D/P/R   R	•	X   X   X	X   X	X	X   X
Repair or replace broken or missing shelving, supports, or hardware	D/P/R	-	X   X	X   X   X	X   X	X   X
Clean surfaces	R	R   	X	X	X	X
Prepare & paint surfaces	D R   D/P/R 	•	   X 	   X	   X 	   X 
美名 化二氯化二氯化 医复数复数复数复数 化二甲基苯甲基		***		100 MI. (N. 100 SK)		CT NR ME ME AME AND

· 如果是 医口口 克克斯斯 医皮肤 医皮肤 医皮肤 经 医						
CLOSET SPECIALTIES	   Pfr	   Min	D<1yr	D>1yr	D<1yr	D>1yr
			R<45d	R<45d	R>45d	R>45d
Inspect for:				—— <b>——</b> 		
Cracks, splits, holes, &	=====  D/P/R	,	=====   X	=====   X		====================================
deformation	R	•	<b>`</b>	1 <b>^</b>	×	'   X
		R	X	X	X	X
Dents, gouges, & chips	D/P/R		X	X		
	R	l R	   X	X	X   X	X   X
Sags & warp	  D/P/R	 			 	
	R	İ	İ	i	X	X
		R	X	X	X	X 
Corrosion	D/P/R		X	x		<u> </u>
1 	R	l I R	   X	   X	X   X	X   X
   Rot	  D/P/R					
		D R	X	j	x	ĺ
		D/P/R	 	X		X
Insect infestation	D/P/R	•	X	×	х	×
	 	D R		X	X 	   X
Loose, broken, or missing	  D/P/R	 	X	   X		
specialties, supports, or hardware	R	ĺ		V	X	X
نوں بھا اس سے بھی ہوں ہوں ہوں ہے جس شہ بال اور بہا گیا ہیں ایس بال کی اس بال ہوں اس سے سے سے بھی ہوں		R  	X 	X 	X 	X 
Surface coat damage	D R	D	Х		х	•
	 	D R		X		X
计算 化环烷基苯基苯甲苯甲甲甲甲甲甲甲甲甲甲甲甲甲甲甲甲甲甲甲甲甲甲甲甲甲甲甲甲甲甲甲甲	=====	=====	12 m 12 m 12 m	****	=====	

MGR activities as required:						
Repair cracks, chips, holes, dents, gouges, & deformation	D/P/R	•	X	X	X X	X X
Remove corrosion	D/P/R	-	X     X	X	   X   X	X I
Replace rotted sections	D/P/R	  D R  D/P/R		X	X X	X
Resecure loose specialties, supports, & hardware	D/P/R   R		X   X	X	X   X   X	X     X
Repair or replace broken or missing specialties, supports, & hardware	D/P/R	7	X	X	X   X	X     X
Eradicate insect infestation	D/P/R 	  D R  D/P/R		×	X	X     X
Clean surfaces	R	   R 	X   X	X	X	   X 
Prepare & paint surfaces	  D R  D/P/R 		   X 	     X	   X 	     X 
. 电电池 医胃性性 电压性性 医甲酰胺 医鼠虫鼠虫 医鼠腹腹部窝		=====	1 ======			

and the first state and the first state and the first state and the first state and the state and the state and	nu 24 24 21 21 21	BUT LEE COR 1771 FIZ.	UNI TRU SEC 223 . 12	m 201 m 122 123	******	김희보무단
CASEWORK	   Pfr	   Min	ĺ	İ	D<1yr     R>45d	•
<b>电影对越越和强的现在分词的现在分词的复数形式 电电压 电影 自想 自我 自我 自我 自我 自我 自我 自我 自我 自我 自我 自我 自我 自我 </b>			-			
Inspect for:		!	1	ļ		
====================================	D/P/R		waxaa   X	www.w		
deformation	R	•	"	i î	i x	x
	İ	R	X	X	X	Х
Dents, gouges, & chips	D/P/R					1/49-5490 14900 1400 14000
dents, godges, a chips	I R		^	1	i x	i x
	i -	R	x	X	X	X
and the same was not case that are the same that and says part bull had see self make that step one was tops tops too too.						
Sags & warp	D/P/R	•	l X	<b>X</b>	(   <b>X</b>	' <b>X</b>
	1	R	i x	i x	i 🛣	i ŝ
	15/5/5					
Corrosion	D/P/R	-	l X	X	   X	l X
		i R	ΪX	х	X	x
Rot	  D/P/R					~~~~~
ROL	ID/P/R	I IDR	X   X	X	X	X
	i	D/P/R		х		×
Insect infestation	  D/P/R			X		
insect intestacion	ID/P/K	D R	X		X	X
	ì	D/P/R		х		x
Loose, broken, or missing	  D/P/R			   X		
specialties, supports, or	I R			^	X	x
hardware	i	R	x	x	X	Î
Surface coat damage						
Surrace Coar damage	ID/P/R	ID R	X   	X	l X	)   X
		, - · · · ·		i		**
到到国民家庭教育经验和实现是美国国际的 经营售 经共享股价价值	THE PROPERTY.	****		有其目符号	祖祖和刘功	

			*****			
M&R activitles as required:	 	l lesessi	Buses			
Repair cracks, chips, holes, dents, gouges, &	D/P/R		X X	X	X	· X
deformation						
Remove corrosion	D/P/R		X I	i x	)   <b>X</b>	i X
	1 .	R	X	X	X	X
Replace rotted sections	D/P/R	D R	X   X	X	X	X
	İ	D/P/R	İ	X		X
Resecure loose specialties, supports, & hardware	D/F/R		X	   X	     X	     X
Supports, a naraware		R	х	X	X	X
Repair or replace broken or missing specialties,	D/P/R	7	X	X	     X	     X
supports, & hardware	İ	į R	X	X	X	×
Eradicate insect	D/P/R	•	X	X	X	X
infestation	!	ID R  D/P/R		   <b>X</b>	<b>X</b> 	×
Clean surfaces	R	R	X	X   X	X	X
Prepare & refinish or paint	    D R	 	     X	   	     X	 
surfaces	D/P/R			i x	   	x
<b>美国西班西班里西亚地西西班西西班牙西班班里西班</b> 里		W-MENNERS TO	***			

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化铁砂定金 化连线 医复合性 医复数 医多种 医多种性 化苯化苯苯苯					=====   D<1yr	
WOOD BLEACHERS	Pfr	Min	<u> </u>	i -	D<19F     R>45d	i
岩比是或粗压铝红和纸锰石过机式设计高等模型低级效果是这	-   marmata	   100 100 100 107 PG	M====	一見信義書店	一番書館は存む	本名表記法
Inspect for:						
Cracks, splits, holes, & deformation	D/E/R	į	X	X	į	Ì
deloimacion		R	X	X	I X I X	l X l X
Dents, gouges, & chips			X	X		
Maria de Maria de Carlos de Arte de Carlos de Arte de Arte de Carlos de Arte de Carlos de Arte de Arte de Arte Carlos de Carlos	R	. <b>x</b>	X	X	X	
Bags & warp	D/P/R		X	X		
	R	l R	x	X	l X l X	X
Corrosion				X	X	X
		D R	<u> </u>	X	X	X
Rot	D/P/R	•	X	X	X	X
		D R D/P/R		   <b>X</b>	X   .	   X
Insect infestation	D/P/R		X	X	X	
		D R D/P/R		) X	X 	   X
Loose, broken, or missing	D/P/R	•	X	   X		 
sections, supports, & hardware	R	R R	   X	)   X	X	X X
Proper operation	   R	   R	   X	X	X	   X
		! 		 	} 	) 
Surface coat damage	  D R		   X			401 Wy 000 000
	D/P/R	D R		X		X
7年,李章明明 12年 12年 12年 12年 12年 12年 12年 12年 12年 12年	***		***	<b>基本的 20 20 20 20</b>	B120年731周東	***

	•	m is u m m		100 HE 300 HE 300		2222
M&R activities as required:	   *******	 		****	   =====	
Repair cracks, chips, holes, dents, gouges, & deformation	D/P/R   R 	:	X     X	X X	   X   X	   X   X
Remove corrosion	D/P/R	    D R  D/P/R		   X   X	X   X	   X   X
Replace rotted sections	  D/P/R		   X   X	   X   X	   X   X	   X   X
Resecure loose sections, supports, & hardware	D/P/R		   X 	X X	     X   X	     X   X
Repair or replace broken or missing sections, supports, & hardware	D/P/R   R		   X   X	X	     X   X	   X   X
Eradicate insect infestation	  D/P/R   	    D R  D/P/R		   X   X	   X   X	X   X
Clean surfaces	R	R   R 	~~~~   X 		   X 	   X 
Repair or replace operating mechanism to assure proper operation	R	   R 	X	X	   X 	   X 
Prepare & refinish or paint surfaces	   D R   D/P/R		   X 		X   X 	     X
	-	-			******	-

医乳球球球球球球球球球球球球球球球球球球球球球球球球球球球球	<b>海欧港市型</b>		####	刘阳和太平,	***	****
· · · · · · · · · · · · · · · · · · ·	İ	ĺ	D<1yr	D>1yr	D<1yr	D>1yr
VENETIAN BLINDS	Pfr	Min	1 1 <b>D</b>	   R<45d	   D > A E A	   D \ 4 E A
建硫镁化异氯氢氯酚邻基氯邻羟苯苯非复克氏医莫拉斯托耳			アノリング			
Inspect for:	i	į	i ·			ĺ
生线性印度异种复数形式 计自然 化二甲基苯甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基	1		=====	*====	====	
Malfunction	D/P/R   R	•	<b>X</b>	) X	l X	X
		R	×	Х	x	x
Loose, broken or missing	D/P/R	•	X	X		
supports and hardware	ļ R				X	X
التحد بالله القرن بعدا عندا شبع بلاد سية بيدر يس جها كالا يأتالاً لجها كال يأتالاً لجها من حاد جال بعد عد يأتو سه سند		R	X	X	X	X
Dented, broken, or	D/P/R	·	×	x		
missing blades	R	•		1. 1 ×	X	X
4年 心思思祖宗初年四世界 网络林林祖祖宗教林林林林林		R	X	X  estest	X	X
M&R activities as required:						
计图象 化氯甲基甲基甲基甲基甲基甲甲甲甲甲甲甲甲甲甲甲甲甲甲甲甲甲甲甲甲甲甲甲甲甲甲甲	野菜雑雑味		****	MAMME	***	
Restore to proper functioning order	D/P/R	•	X	X	X	X
Tune training Order		R	Х	Х	X	X
Repair or replace supports or hardware	ID/P/R		l X	X	i x	i X
		R	x	×	X	x
Repair or replace blades	D/P/R			X		
- •	R	•			X	×
	 	R	X	X	X	X
Clean venetian blinds	R	R	X	X	X	X
	) 3		<b>}</b>	 		
化二甲基甲基甲基甲基甲甲甲甲甲甲甲甲甲甲甲甲甲甲甲甲甲甲甲甲甲甲甲甲甲甲甲甲甲		munaee		=====	=====	  ======

### INTERIOR CONSTRUCTION - EXPOSED STRUCTURAL ELEMENTS

NOTE:

D = Deactivation

Pfr = Preferred

P = Periodic

Min = Minimal

R = Reactivation

yr = year

d = days

<b>建设设设设施的 医动物 医阿里氏 医阿里氏 计自由的 的复数 经股份股份 电影 医皮肤 医皮肤 医皮肤 医皮肤 医皮肤 医皮肤 医皮肤 医皮肤 医皮肤 医皮肤</b>			-		100 littl 100 littl 100 littl	200 MAX No. 200 MAX
·	!		D<1yr	D>1yr	D<1yr	D>1yr
TRUSSES	Pfr	Min			1	]
	!	!		R<45d	•	
以			   == = = = = = = = = = = = = = = = = =	1000年2006		
Inspect for:	. 	- 		   #####	] 	
Excessive deflection *	D/P/R	1	X	X	X	X
(greater than L/180)		D R	,		i x	. <del>*</del>
(greater and r, ret)	<u> </u>	D/P/R		X		X
Twisted or bowed members *	D/P/R	<del></del>	X	X	X	
IMISER OF DOMER WEMDERS		D R		, A.	X	, <u>A</u>
	İ	D/P/R		Х		x
Decay or rot	D/P/R		X	X	X	X
beday of for		D R		, A	X	, A   
		D/P/R		х	**	i x
			·			
Checks and splits *	D/P/R		X	X		
	R				l X	X
	1	R	X	X	X	X
Separation or slippage at	D/P/R	]	X	X	 	 
joints	l R	•	** 		i x	i x
<b>J</b>	i	R	X.	Х	X	X
	D/P/R		X	X		
rivets	R				l X	X
	! !	R	X	X	X	X
Corrosion	D/P/R	 	1 X	X	X	X
		D R		·	X	
	į	D/P/R		x	į	x
Rupture, shearing or crushing				X		
of steel plates, members,	D/P/R	-	1 <b>^</b> 1	^	X	   X
bolts and rivets *	İ	R	i x	X	X	l A
伊斯克尼亚斯拉斯斯巴斯斯加斯斯斯斯阿斯巴斯里加美国贝尔			mmmm v			

NOTE: The items marked with an asterisk (\*) can develop into a serious structural problem. If the cause of the defect or local failure is not immediately discernible or if the corrective measures are not straightforward, consultation and advice should be obtained from a qualified architect or structural engineer.

			====	manner		====	
M&R activities as required:	 		 			lumbun lumbun	ı
Determine and relieve cause   of overload		l ID R	x i x	X	X	X	
	 	D/P/R	 	X	 	X	ı
Replace rotted member, elim-	D/P/R	<u> </u>	i x	x	İ	İ	
linate cause, ventilate area	R 	l I R	   X	   X	X   X	X   X	
Close split with stitch	  D/P/R		   X				ı
bolts or clamps *	R	:	1		X	i x	
	1	R	X	X	X	X	
Tighten or replace bolts	D/P/R		X	X			
	R	Ì	į	·	Х	X	l
	 	R	X	X	X	X	i
Remove minor corrosion,	D/P/R		X	X	X	X	
eliminate source of moisture		D R		ļ <b></b>	X		ĺ
5 8 5 5 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	:	D/P/R  ====	:	X  ====	   =====	X  ====	

医乳腺性 医二甲基甲基苯甲基苯甲基苯甲甲甲甲甲甲甲甲甲甲甲甲甲甲甲甲甲甲甲甲甲甲甲甲甲甲甲	_=====	*====	=====			
ROOF RAFTERS AND PURLINS (pitched and flat)	   Pfr	Min	i -	•	_	D>1yr       R>45d
	  =====	}   =====	K<45Q	•		ガンもつひ
Inspect for:	     =====	i	   		   ====	i i
=====================================	D/P/R	  DR	X X	x I	X X	x
	 	D/P/R	! 	X 	 	X
Ridge sagging (pitched) *	D/P/R	i ID R	j x j x	i <b>x</b>	X	i x i
·		D/P/R	!	X	!	X
Loose bolts or nails	D/P/R		X	   X		<b></b>
 		R	X	X	X   X	X   X
Cracked, split or broken	D/P/R		х	X		
members *	R 	R	x	X	X   X	X     X
Insect damage	D/P/R	•	X	X	X   X	
 		D R  D/P/R  ====	i	   X 		X
M&R activities as required:	Ì	i	===== 	=====   	===== 	=====     
Tighten bolts or secure	D/P/R	===== 	=====   X	=====	===== 	=====   
nails	R	:	i -	İ	Х	i x i
	1	Į R	X	X	ı X	Χļ
Replace member if insect damage is extensive, elimi-	D/P/R	ID R	X	X	X	X
nate cause	•	D/P/K		   X 	A   	X
Strengthen split or broken nembers *	D/P/R		X	X	   	
Memingly 5	l R	l I R	!   X	l I X	X   X	X     X
	=====	=====	=====			=====

凯拉拉比斯克拉拉拉拉拉克克拉斯克拉拉拉拉拉拉拉拉拉拉拉拉拉拉拉拉拉拉拉拉拉拉拉拉		=======================================		事業が発生		E====	١
JOISTS, BEAMS 6	)   Pfr	   Min			D<1yr		
GIRDERS	!	,		•	R>45d	•	
Inspect for:	i	i		İ			į
Excessive deflection (all)	D/P/R	•	X	<b>EBB</b> AR	) X	<b>=</b> ====   X	1
(greater than L/240) *		D R [D/P/R	X	X X	X X	)     X	1
Loose bridging (wood)	  D/P/R		   X	X:		 	İ
	l R		   X	×	X X	X X	
Insecure nailing (wood)	D/P/R	-					1
	l R	R	   X	X	X   X	l X l X	1
Insect damage or rot (wood)	D/P/R	l D R	X	X	X X	X	1
		D/P/R	,	X	^	X	1
Insufficient bearing *	D/P/R	•	X	X	     X	)   X	
man and and and and again and again the last again again again again and and and and again and the again again.		R	X	X	X 	X	
Checks and splits *	D/P/R		Х	x	i X	i X	
سند ويش رهم المراجعة المراجعة والمراجعة والمراجعة والمراجعة والمراجعة والمراجعة والمراجعة والمراجعة والمراجعة		R	X	X 	X	X	
	D/P/R	:	X	X	, X	X	   
and the two this gate this last two two this last was gate the last two two was two was the way and the last was the		R	X	X	X	X	i
Corrosion (steel) *	D/P/R	i IDRI	X	X	X	X	i
		D/P/R		X		X	İ
Localized buckling at or near ends of supports *	D/P/R	i ID RI	X. I	Х	X X	х	!   
and the time the side that the the the time and the time the time the time the time the time the time the time the time the time the time the time time time time time time time tim		D/P/R		X		X	
Distorted seat angle * (steel)	D/P/R		x	X	x	x	
CONT THAT THE SEAL OF THE THE THE THE THE THE THE THE THE THE		R i	х	X	X	X 	
Cracks near supports * (concrete)	D/P/R	,   	x	Х	X	x	   
	1	R	X	X	X	X	)   

古古年中国在阿里斯斯斯 化苯甲酰胺 新原代 化氯氯胺 化盐甘油酸	****				*****		ı
M&R activities as required:	ļ .	!	!		!		t
	37121212121		***		<b>福度市市</b> 社		ı
Secure bridging and nails	D/P/R		l X	X			١
	[ P.	1	1	l	l X	X	١
1	1	R	i x	X	X	X	İ
The same case was also also take the time of the time time time is 1 figs. The time time time time time and			·				1
Replace rotted member, elim-	D/P/R	1	ł X	X	X	X	١
inate cause, ventilate area	I	ID R	l X	i	! X	l	ĺ
	1	D/P/R	į	X		X	ĺ
Remove minor corrosion,	D/P/8			Y			
eliminate source of moisture		D R			X	^	
	i E	D/P/R	İ	i x	i	X	İ
現代を開発を表現しまない。   「		**************************************	(無職業		- 1000   1000		1

The rest of the rest and the second section in the first and the property and the second section is the section	THE PERSON NAME AND ADDRESS OF	施斯氏试验:	111 12 15 15 15 15 15 15 15 15 15 15 15 15 15	No. 114 Mar Sr; 196.	***	111 医肾 育 性	ı
;   COLUMNS	Pfr	j Min	D<1yr	D>1yr	D<1yr	D>kyr	l
COLONIO	1 .		R<45d	R<45d	R>45d	R>45d	ĺ
	1 Mart 1000 1000 1000 1000		<b>====</b> =	=====	=====		1
Inspect for:		mmmmm 	=0×15===	   ===================================	  =====	  =====	l
Out of plumb, buckled or	D/P/R	: .	X	X	X	X	į
bowed *	•	ID R ID/P/R		   X	l X	l I X	 
Evidence of water problems	D/P/R		X	X	X	X	 
at base plate	1	D R			X	ļ	İ
I - M - CIP ALM ALE SIAD ALE LIST MAY BAD GAV FRO The SEE MAY BE GOT ASS SAID BAD BAD THE SEE WH THE SEE WE WE		D/P/R	 	X 	 	.X 	1
Rot or deterioration	D/P/R	•	X	İΧ	x	x	İ
		D R  D/P/R		   <b>X</b>	X	l I X	ļ
		<del></del>	 				
Checks or splits at con-	D/P/R	:	X	X			ĺ
nections *	R	l I R	l I X	X	l X l X	I X I X	l l
	<u> </u>					i	į
Corrosion	D/P/R	l IDR	X   X	X	l X	X	
	į	D/P/R		x	^	x	
Cracking of concrete cover,	D/P/R	 		   X			i i
exposing reinforcing *		D R	j x		X		i
1		D/P/R	ļ	X	 	X	
Rust staining on concrete *	D/F/R	 	X	X	 		
	R		!	ļ	X	X	į
Committee per view case and six a view case case that while well that while tops dough ands topy plus when their pers days view case pers days view case case.		R	X 	X	! X	X	ŀ
	D/P/R	•	i x	x	i x	x	ŀ
interface *	•	D R  D/P/R	•	   X	X	   X	
表现状体点系统的 1/ 多数左右穿过的过去式和过去分词	•		!		=====	^  =====	
M&R activities as required:	}						ĺ
accurate and remedy water	D/P/R	•	X	X	== 13= =   X	X	l I
problem	1	D R	X	į	x	ĺ	
		D/P/R		X	 	X	1
Replace rotted member, elim-			X	X	X	X	l
inate cause, ventilate area		D R			X.	j	İ
		D/P/R  	 	X		X	
	D/P/R		x	x	x	х	
eliminate source of moisture		D R   D/P/R		<b>X</b>	X		
				#####	  ====u	X  =====	

#### INSPECTION AND M&R CHECKLISTS FOR INTERIOR ELECTRICAL SYSTEMS

and the second second

#### General Notes

The accompanying procedural checklists cover general activities for deactivation, periodic maintenance, and component reactivation. Special care should be exercised to ensure that dissimilar metals are not left in contact when circuits and switchgear are deenergized. Additionally, all electrical enclosures should be scaled as much as practicable to avoid moisture intrusion. in (in au)

Emergency and security systems should be kept energized. These systems include fire alarm. security lights, sump pumps, and the emergency monitoring and control system (EMCS) if used. These circuits should be adequately marked for easy verification of condition and service by personnel performing periodic and emergency maintenance.

The electrical systems should be inspected for proper operation and degradation during semiannual inspections and after severe thunderstorms or floods. Every attempt should be made to ensure the fire, security, and EMCS systems are maintained in good condition. Special care should be exercised to prevent moisture intrusion and resulting corrosion damage (or fire and life-safety concerns) in these components and systems.

It is possible that semiannual inspections and maintenance may not be adequate for some unique equipment. Manufacturer's literature should be used to help determine the appropriate inspection and schedule maintenance frequency. The National Fire Protection Association document NFPA 70B, Recommended Practice for Electrical Equipment Maintenance, and the Westinghouse text Electrical Maintenance Hints should be used for further guidance on frequency and type of maintenance activities for various electrical system components.

An appropriate recordkeeping system and routine tagging of equipment requiring repair should be initiated at the time of facility deactivation. This will help ensure that critical components and systems are identified and repaired in a timely fashion. All switchgear, transformation equipment, conductor connections, and circuit breakers or fuses must be periodically inspected for poor connections, corrosion, or other moisture damage. These conditions could lead to overheating of components, even in a lightly loaded circuit. Insulations should be inspected for degradation and all grounding equipment should be tested for proper operation.

### Subcomponent List for Interior Electrical System

Thermal Circuit Breakers/Panels
Mechanical Circuit Breakers and Boxes
Fused Links and Fuses
Motor Control Centers
EMCS Panels
Transformation Equipment
Conductors (Wiring)
Switches
Outlets
Security Lights
Exit Lights
Interior Lighting (Flourescent and Incandescent)
Fire Detection/Alarm System

### INTERIOR ELECTRICAL

NOTE:

D = Deactivation
P = Periodic

R = Reactivation

Pfr = Preferred Min = Minimal

yr d = Year
= Days

				d = D	ays 	
ELECTRICAL EQUIPMENT	Pfr	Min	D<1yr	D>1yr	D<1yr	D>1yr
			R<45d	R<45d	R>45d	R>45d
INSPECT FOR:						
All equipment containing insulating oil (transformers)	D/R	D/R	x	х	ж	х
Insure power is on to sump pump, security lights	D	מ	х	х	х	х
Breaker panel mois- ture, animal intru- sion/degradation (QUARTERLY)				х		х
Fire/security/sump systems for proper operation (90 days)	D/P/R		х	х	×	x
Security lights	R P	R P	Х	X X	х	X X
Lights, outlets and switches for corrosion or other degradation	R	R	х	х	х	х
M & R ACTIVITIES						
De-energize all un- needed lights, out- lets, motors at main breaker panels	D	D	х	х	х	X
Lubricate all mech- anical operating linkages	D		x	x	x	х

### BUILDING ELECTRICAL

NOTE: D = Deactivation

P = Periodic

R = Reactivation

Pfr = Preferred

Min = Minimal

yr = Year

				d = D	ays	
ELECTRICAL EQUIPMENT (CONTINUED)	Pfr	Min	D<1yr R<45d	D>1yr R<45d	D<1yr R>45d	D>1yr R>45d
M & R ACTIVITIES	pitt pait max max ran arps		养 球 社 岩 縣 克 斯 縣		克里克尔亚加	M M M M M M M M
Touch up paint to prevent corrosion	D P	10 M 10 10 10 10	X	**************************************	X	X X
Add oil where re- quired	D		х	х	х	x
Install induction heaters in all de- energized electri- cal panels to con- trol humidity (10 watts/cubic foot)	D			х		x
Seal all breaker panels to prevent moisture intrusion	D	D	х	Х	х	х
Remove fuses from unused circuits and plastic bag	D			х		Х
Insure that power is on to security and fire systems	D	D	х	Х	х	x
Replace socurity lights as required	D/P/R	D/P/R	X	Х	х	X
Log any failed com- ponents for reacti- vation repair	Þ	P		×		х
Repair fire and security system as required	D/P/R	D/P/R	х	х	x	х

### BUILDING ELECTRICAL

NOTE:

D = Deactivation P = Periodic R = Reactivation

Pfr = Preferred

Min = Minimal

yr = Year d = Days

					ela ela	
ELECTRICAL EQUIPMENT (CONTINUED)	Pfr	Min	D<1yr R<45d	D>1yr R<45d	D<1yr R>45d	D>1yr R>45d
M & R ACTIVITIES	Ter mer har jage hab	ad all his will his his	~450	N-450		
Remove heaters from all panels and clean contacts. Check circuit breaker operation	R			. X	man kana kana iliah ilia	X
Check all breakers for corrosion and clean or repair. Test all circuits	R	R	х	х	x	X
Perform load survey to insure adequacy for expected loads	R		x	х	x	x
Check all lights, outlets & switches	R	R	х	X	х	х
Replace/repair all lights outlets and switchgear which does not meet code	R	R	х	х	х	X
Reactivate circuits one at a time and insure proper operation	R	R	х	x	x	х

### INTERIOR ELECTRICAL - SUMP PUMPS

NOTE:

D = Deactivation P = Feriodic R = Reactivation

	-				-	-
SUMP PUMPS AND MOTORS	Pfr	Min	D<1yr	D>1yr	D<1yr	D>1yr
			R<45d	R<45d	R>45d	R>45d
INSPECT FOR:					on the bear maken the	an out six the last har wat the
Proper operation of sump pump: quarterly with checks after major rain and lightning	D/P/R	D/P/R	x	x	x	x
Pump motor corro- sion (quarterly)	p		Х	X	X	X
M & R ACTIVITIES						
Repair or replace pump, motor, com- ponents as required		D/P/R	X	X	X	×
Clean or replace strainer and plumb- ing to drain	D/R	, a de common de la la de de la common de la common de la common de la common de la common de la common de la c	Х	х	х	X
Clean, dry and paint sump pump, motor, access cover	Ď		Х	x	. X	x
Steam clean and paint pump motor if corrosion is found	D/P/R		X	х	X	x
Perform low voltage ohm-meter test on sump pump moters for insulation	R		Х	Х	X	х

# INTERIOR ELECTRICAL - SUMP PUMPS

NOTE:

D = Deactivation P = Periodic

R = Reactivation

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SUMP PUMPS AND MOTORS (CONTINUED)	Pfr	Min	D<1yr R<45d	D>1yr R<45d	D<1yr R>45d	D>1yr R>45d				
M & R ACTIVITIES										
Perform low voltage ohm-meter test on 10% of pump motors for proper insula- tion		R		x		x				
Dry in a suitable oven any pump motor having low insulation resistance	R	R	x	х	х	х				
Hand test pump motor for ease of rotation	P/R	P/R	х	х	x	x				
Test pump motor under load and in- sure required flow	D/R		x	х	х	х				

#### APPENDIX F:

#### INSPECTION AND M&R CHECKLISTS FOR PLUMBING

#### General Notes

This checklist is essentially a shutdown and startup procedure. Very little inspection is needed since the system will be shut down and drained. It is important that the steps be followed in the sequence listed.

If the buildings are going to be heated, only the valve to the domestic water side of the system is to be closed. The supply of domestic water to the building heating system cannot be shut off because makeup water will be required if buildings are to be maintained at 40 to 45 °F. If the buildings are not going to be heated, the domestic water supply to the building heating system may be shut off. Make sure that the valve is opened when the building is reactivated.

The periodic inspection (Preferred option) should be carried out annually. Failure to inspect and replenish propylene glycol (so traps remain sealed) may result in seepage of hydrogen sulfide/sower gas into the building. This should not affect the plumbing system, but is hazardous to people and may accelerate deterioration of paint and metallic components.

It is acceptable to use alcohol-based windshield washer fluid in place of propylene glycol to seal the traps.

If the plumbing system is deactivated for 6 months or longer, the valve packing and washers in the components that contain them should be replaced at the time of reactivation, because the material will age and lose its resiliency in a dry system.

### PLUMBING

NOTE:

D = Deactivation P = Periodic

R = Reactivation

Pfr = Preferred Min = Minimal

yr = year d = days

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	   Pfr	   Min	D<1yr	D>1yr	D<1yr	D>1yr
		PLEAT	R<45d	R<45d	R>45d	R>45d
		######   	<b>建筑建筑建筑</b>		医阴极性神经神经	
Drains and traps to insure that there is enough propylene glycol remaining to seal them.	P		X	X   X	   X 	X I
Breakage, vandalism, stolen property	P,R	R	X	X   X	X   	X 
M & R activities:				1221年1222年1222年1222年1222年1222年1222年122		
Flush all urinals and water closets once.	D	D	   x 	   x 	) x	x
Close valves inside the building to the domestic water side of the system.	D	D	X	X	X   X 	X   
Shut off energy to domestic hot water heaters/ tanks.	D	D	X   X	X	   X 	X   X
Drain all water heaters/ storage tanks.	D	D	i ×	X	X	   X 
Drain the closed/shut off domestic hot and cold water lines.	ט !	D	X   X	   X 	X	   X 
Drain lines to and from   each urinal and water closet.	D	D	X   X 	X	X	   X 
   图明时间的复数过度的新国际的复数形式 医骨骨骨骨骨骨骨骨骨骨骨骨骨骨骨骨骨骨骨骨骨骨骨骨骨骨骨骨骨骨骨骨骨骨骨骨			 	 		*****

<b>排河岸州汽车水水类型市区区区产水水水水水平</b>	m light 100 1070 talk (1916 1					
,   	   Pfr 	   Min	D<1yr    R<45d	D>1yr    R<45d	_	D>1yr   
 	 	 	,,,,,,,,	11/45 <u>u</u>	N	N
Dismantle valve/stop (flushometer) for each urinal or water closet and store components in a non-biodegradable bag attached to unit.	D		X       	X .       	X 	X   
Drain lines to and from each shower.	D	D	X 	X	X	x
Dismantle shower valves and store components in a non-biodegradable bag attached to unit.	D		X   X	X	X	X
Drain lines to and from each lavatory.	D	D	X	X	X	X
Drain lines to and from each service sink.	D	D	X	X	X	X
Drain lines to and from each laundry tray.	D	D	X	X	X	X
Drain lines to and from each automatic clothes washer and drain associtated hoses and pump.	D	D	X	X	X	X
Drain lines to and from each drinking fountain and associated tank.	D	D I	X   	X   X	X	X
Remove any remaining water from lines by blowing compressed air through the system.	D	D	X   X	X   X 	X   	X
Add propylene glycol (antifreeze) to all floor drains and traps.	D	D	X	X	X   	X     X
Add propylene glycol to traps or drains requiring it.	p	100 over 100 000 100	X .	X	   X 	   X
	. Mai lanc state and state and state			Birkin in in in in in in in in in in in in i	In 1922 to 1922 to 1924 to 1924 to 1924 to 1924 to 1924 to 192	15 laik her sint en 1411 1411 1

		-====				
,    -	   Pfr	   Min	D<1yr 	D>1yr 	D<1yr	D>1yr
	 		R<45d	R<45d	R>45d	R>45d
Repair broken/missing  pipes/fixcures if  necessary for safety or  other critical reason.  Otherwise, just note it.	P     		X     	X     	X     	X     
Repair all broken/missing fixtures/piping.	R	R	i x	×	x 	<b>x</b>
Restore valve/stop on leach water closet and urinal to working condition according to the NE procedure below that applies to the situation:	R	R	     X   	X   X 	X   X 	X
A. PREFERRED ONLY: Re-   assemble valve/stop     using appropriate     flush and handle kits			 	 	 	       
B. MINIMAL; VALVE IN USABLE CONDITION: Disassemble valve/stop and reassemble using new kits.			-          -  -	           		
OR				ļ	   	
C. MINIMAL; VALVE IN UNUSABLE CONDITION: Replace entire valve/ stop.			       	         	       	 

医非状性性试验 计推断 医海内原尿 医肾上腺 医多种样		***				
	   Pfr	   Min	D<1yr	D>1yr	D<1yr	D>1yr
	PIT	   MIU	R<45d	R<45d	R>45d	R>45d
Restore each shower valve to working condition according to the ONE procedure below that applies to the situation:	R I	R   R 		X   X   J	X   X     X	X   X 
A. PREFERRED ONLY: Re- assemble shower valve, replacing washers and packing.	   	 	!    -  -  -			
B. MINIMAL; VALVE IN USABLE CONDITION: Disassemble valve and reassemble using new washers and packing.		 		 	 	 
OR	 	 	<u> </u>	 	<u> </u>	<b>!</b> [
C. MINIMAL; VALVE IN UNUSABLE CONDITION: Replace entire valve.		 	       	[ ]   	       	} 
Replace washers and packing on faucets for each lavatory.	   R	   R 	   X 	X   X	   X 	   X 
Replace washers and packing on faucets for each service sink.	R	   R 	X   	   X 	   X 	   X 
Replace washers and packing on faucets for each laundry tray.	R	   R 	   X 	X   X 	X   X	X   X 
1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1		6212222	* * * * * * * * * * * * * * * * * * *	6 <b>4</b> 4 4 5 5 5 5 5	Busus e e e e	Famore:

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							_
	   Pfr  -	Min	i -	Ī	j -	j <b>"</b>	
and packing for each automatic clothes washer.		R   	X   		X X		     
lator, washers, and packing for each drinking fountain. Replace unit	Part Carrier	1	<b>X</b>	<b>X</b> 2	(Colf on )	<b>x</b>	
inside each building to domestic water side of	1	'	<b>X</b>	X	X	X	 
units are individually	211		X	X   X	X	X	] ] ] .
heater. Check for proper	R	R	X	X	X	X	     
	R	R	X	Х	X	X	   
and traps to remove	R	R	<b>X</b>	X	X     X	X	
leaks after flushing   water closets and urinals  or running water in sinks  or other units. Repair	R	R	X	X	X     X       	X	
	Replace unit if necessary Replace pressure regu- lator, washers, and packing for each drinking fountain. Replace unit if necessary.  Slowly open valve(s) inside each building to domestic water side of system.  Check for leaks as taps/ units are individually activated. Repair leaks.  Fill lines, tanks, and	Replace hoses, washers, and packing for each automatic clothes washer. Replace unit if necessary  Replace pressure regulator, washers, and packing for each drinking fountain. Replace unit if necessary.  Slowly open valve(s) Inside each building to domestic water side of system.  Check for leaks as taps/ Runits are individually activated. Repair leaks.  Fill lines, tanks, and heater. Check for proper operation and pressure.  Restore energy to hot Ruster heaters/ tanks.  Flush all floor drains Ruster heaters/ tanks.  Flush all floor drains Ruster heaters for Ruster draws to remove propylene glycol.  Check drain lines for Ruster dosets and urinals or running water in sinks or other units. Repair	Replace hoses, washers, and packing for each automatic clothes washer. Replace unit if necessary  Replace pressure regulator, washers, and packing for each drinking fountain. Replace unit if necessary.  Slowly open valve(s) R R R inside each building to domestic water side of system.  Check for leaks as taps/ R R units are individually activated. Repair leaks.  Fill lines, tanks, and R R R heater. Check for proper operation and pressure.  Restore energy to hot R water heaters/ tanks.  Flush all floor drains R R R and traps to remove propylene glycol.  Check drain lines for R R R leaks after flushing water closets and urinals or running water in sinks or other units. Repair	Replace hoses, washers, R R X and packing for each automatic clothes washer. Replace unit if necessary  Replace pressure regu- R R X X lator, washers, and packing for each drinking fountain. Replace unit if necessary.  Slowly open valve(s) R R X inside each building to domestic water side of system.  Check for leaks as taps/ R R X units are individually activated. Repair leaks.  Fill lines, tanks, and R R X wheater. Check for proper operation and pressure.  Restore energy to hot R R X water heaters/ tanks.  Flush all floor drains R R X and traps to remove propylene glycol.  Check drain lines for R R X X leaks after flushing water closets and urinals or running water in sinks or other units. Repair	Replace hoses, washers, R R X X And packing for each automatic clothes washer. Replace unit if necessary  Replace pressure regulator, washers, and packing for each drinking fountain. Replace unit if necessary.  Slowly open valve(s) R R X X X inside each building to domestic water side of system.  Check for leaks as taps/ R R X X X units are individually activated. Repair leaks.  Fill lines, tanks, and R R X X X water heaters/ tanks.  Flush all floor drains R R X X X and traps to remove propylene glycol.  Check drain lines for R R R X X X leaks after flushing water units. Repair	Replace hoses, washers, and packing for each automatic clothes washer. Replace unit if necessary  Replace pressure regulator, washers, and packing for each drinking fountain. Replace unit if necessary.  Slowly open valve(s) R R R X X X X X inside each building to domestic water side of system.  Check for leaks as taps/ R R X X X X units are individually activated. Repair leaks.  Fill lines, tanks, and R R R X X X X theater. Check for proper operation and pressure.  Restore energy to hot R R R X X X X and traps to remove propylene glycol.  Check drain lines for R R R X X X X leaks after flushing water closets and urinals or running water in sinks or other units. Repair	Pfr Min R<45d R<45d R>45d R>45d R>45d R>45d Replace hoses, washers, and packing for each automatic clothes washer. Replace unit if necessary  Replace pressure regumant Replace unit if necessary  Replace pressure regumant Replace unit if necessary.  Slowly open valve(s) R R R X X X X X X X X X X X X X X X X

#### APPENDIX G:

#### INSPECTION AND M&R CHECKLISTS FOR BUILDING HEATING SYSTEMS

#### General Notes on Building Heating Systems

The term building heating systems refers to all heating equipment within a building that uses steam generated at a central boiler plant. It does not include the steam distribution system outside the building, but does include such components as pressure-reducing stations, steam-to-hot-water converters, flash and expansion tanks, condensate and hot water circulation pumps, condensate receivers, etc. Differences in procedures for the deactivation, periodic maintenance, and reactivation of building heating systems primarily depend on whether heat will be supplied to the twilding (reactivation less than 45 days) or will not be supplied to the building (reactivation greater than 45 days).

Descrivation procedures for the no-heat scenario involve the draining and drying of building heating system components. Under such conditions, periodic inspection and maintenance procedures are very minimal, involving essentially only walk-through inspection for signs of external sweating and corrosion of various components, and the appropriate corrective action where needed. Where heat is provided to the buildings, a fairly rigorous preventive maintenance program is recommended. Costs of such maintenance should be easily recovered in savings in boiler such costs that would otherwise be spent to compensate for live steam leaks, faulty steam traps, and in perative condensate return systems.

Preventive maintenance costs for a deactivation period of less than 1 year are based on 1-year costs. Preventative maintenance costs for a deactivation period of longer than 1 year are based on costs for a 10-year deactivation period. Costs for the "Do Nothing" scenario are based on total system replacement.

#### Subcomponent List for Building Heating Systems

Condensate Receiver
Steam-to-Hot-Water Converter
Condensate Pump and Motor
Expansion Tank
Flash Tank
Hot Water Generator (Steam Side)
Hot Water Heating Supply and Return Piping in Buildings
Hot Water Circulation Pump and Motor
Pressure-Reducing Station
Radiator
Steam Supply and Return Piping in Buildings
Steam Supply Line Traps and Strainers

NOTE:

Pfr = Preferred
Min = Minimal
yr = year
d = days

D = Deactivation P = Periodic R = Reactivation

			  R<45d	D>1yr    R<45d	  R>45d	i
Inspect:				jan distribution Markovitation		
Receiver for leaks and proper operation	D/P R	DPR	· · · x       · · · x	X   X 	     X   X	X X
Receiver for evidence of sweating and corrosion	P/R	R   P			X	X   X
M & R activities:		1	1	1		1
Repair or replace receiv- or where necessary	D/P R	D	X 	X X	     X	       X
Service of the servic		R	x	į	<b>x</b>	Î
Drain receiver	D	D	!		X	X
Clear out deposits, mud,   scale, etc. Wire brush   where necessary	D				X   X	X
Paint interior surfaces   of receiver	D				X	X
Clean corrosion from re-   ceiver where necessary	P	P	X	X   X		
· · · · · · · · · · · · · · · · · · ·	R 	R 			X 	X 
Provide portable heating   to control sweating and   corrosion where neces-   sary	Þ	P			X   	X   X 
Reconnect piping	R	R			x	X

D = Deactivation
P = Periodic
R = Reactivation NOTE:

Pfr = Preferred Min = Minimal

yr = year d = days

STEAM TO HOT WATER CONVERTER	   Pfr 	   Min 	1	1	D<1yr    R>45d	1
Inspect:					1	ļ
Converter for leaks and proper operation	D   P   R	   D   P   R	X   X     X	X   X   X	X     X   X	X     X   X
Converter for missing or deteriorated insulation	D P   R	D P R	X   X     X	X   X   X	X	X X X
Converter for evidence of sweating and corrosion	P   P   ******************************	     			X   X 	X   X   X
Repair or replace con- verter where necessary	D P R	   D   P   R	X   X   X 	X   X   X   X	X   X   X   X	X       X   X
Replace missing or de- teriorated insulation	D P R	D P	X   X   X 	   X   X   X	   X     X   X	X   X   X   X
Flush converter steam coil with fresh water	D	D			   X 	) X
Orain converter	D	D	 		X	
Ory converter steam coil   sing compressed air	D			     	X   X 	X   X

NOTE: D = Deactivation
P = Periodic
R = Reactivation

STEAM TO HOT WATER   CONVERTER (continued)	   Pfr 		1 -	D>1yr    R<45d	i -	1
Dry converter hot water side using compressed air	D			   	X   	X
Provide portable heating to control sweating and corrosion where neces-	P	P		mas loos cops deet look haar	X	X   X   X

NOTE: D = Deactivation
P = Periodic
R = Reactivation

Pfr = Preferred Min = Minimal

yr = year d = days

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CONDENSATE PUMP AND MOTOR	) Dfr		D<1yr	D>lyr	D<1yr	D>1yr
COMPERCENT FOR AND MOTOR			R<45d	R<45d	R>45d	R>45d
Inspect:						
	, 4 (m) 40) 45 (m) 70 (					
Pump for leaks	D P	l I D I P	X   X	) X   X   X	X   	X 
	R	R	X	 	X	X
Pump for proper operation	D P	D D	X	X	X 	X   X
	R	P   R	   x	<b>X</b>   	×	X X
Pump and pump motor for corrosion	P	     P			X	X   X
M & R activities:		 				
Repair or replace pump where necessary	D P	   D   P	i X i X	X   X   X	X 	X 
	R	R	×		i x i x	X
Flush pump with fresh water and drain	D	D			X	X
Coat interior surfaces with engine preservative oil MIL-L-21260, grade 2, by spraying or fogging while slowly actuating the pump	D	D	         		X   	X     
Cover shaft with compound preservative, Specification MIL-C-11796B, class   2	D	D			X   X 	X   

NCTE: D = Deactivation
P = Periodic
R = Reactivation

CONDENSATE PUMP AND MOTOR (continued)	   Pfr 	Min	· -	D>1yr    R<45d	D<1yr    R>45d	-
Seal all pump openings with pressure sensitive tape, MIL-T-4053B	D	D I	     		X   	X   
Clean and paint pump and motor where necessary	D/P	D P			X	X   X
Lubricate pump and pump motor	P R	P	     	X	X	X
Remove pressure sensitive tape from pump openings	R	R	     		X	X
Remove all internal and external protective coat- ings	R	R   R	     		X	X   
Hand test pump for ease of rotation	R	R				X
Perform low voltage ohm- meter test on pump motor for proper insulation	R I	<b></b>     			X	X I
Perform low voltage ohm- meter test on 10% of pump motors for proper insula- tion		R   	†   	       	X   	X
Dry in a suitable oven any pump motor having low insulation resistance	R	R			X   	X   
Hand test pump motor for ease of rotation	R	R				X
Test run pump motor under load for 4 or more hours		R				X

D = Deactivation P = Periodic R = Reactivation

			**			
EXPANSION TANK	   Pfr	i	1	D>1yr	1	1
are the properties that the first toe the formal and the particle and the first line are an all the			IR<450	R<45d	K>45C	R>450
Inspect:						
Tank for leaks	l D l P	   D   P	X   X	X   X   X	X 	X
	R	   R	   X		X   X	X X
Tank for evidence of sweating and corrosion	P   P 	P   R			X   X	X
M & R activities:	====:   	 	 			
Repair tank leaks or replace tank where neces-	D   P		X   X	X   X   X	X   X	X   X
	R 	R	×		X X	X
Flush tank with fresh water and drain	D	D			X	X
Clean out deposits, mud, scale, etc. Wire brush where necessary	D   				X	X
Spray or fog interior surfaces of tank with preservative (MIL-C-16173	D	       		       	X	X
Clean corrosion from tank where necessary	P	   P   R			X	X
Provide portable heat to control sweating and cor-	P	     P 			X 	X   X
Reconnect piping	R	R				
E 通知 电 医 自 基 基 集 美 基 新 新 新 新 表 图 图 图 图 图 图 图 图 图 图				****		I was an one we

D = Deactivation P = Periodic R = Reactivation

  FLASH TANK 	   Pfr	Min	1	D>1yr    R<45d	1	<u> </u>
Inspect:	<u></u>		 			
Tank for leaks	D   P   R	   D   P   R	X   X     	X   X   X 	X     X   X	X       X   X
Tank for evidence of sweating and corrosion	   P 	P   R			X X	X
M & R activities:						
Repair tank leaks or replace tank where neces-	D P R	   D   P   R	X   X   X	X   X   X   X	X     X   X	X     X   X
Flush tank with fresh water and drain	מ	   D 			   X 	   X 
Clean out deposits, mud, scale, etc. Wire brush where necessary	D	<b></b>			X	X
Spray or fog interior surfaces of tank with preservative (MIL-C-16173)	D				X	X       X     
Clean corrosion from tank where necessary	P	P   R			x	X   X   X
Provide portable heat to control sweating and corrosion where necessary		P			X	X   X   X
Reconnect piping	R	R		C'HE MAY MAN HAY HAY FAN	X   X	~~~~    X     »=====

D = Deactivation P = Periodic R = Reactivation NOTE:

day with goal start was dops mad thin their hand had then start was start had some hand have been been been been been been been be			D<1yr	iD>1yr	D<1yr	D>1yr
HOT WATER GENERATOR (STEAM SIDE)			  R<45d	  R<45d	  R>45d	  R>45d
Inspect:		1 1 1 1 1 1 1				
Heater coil for leaks	R	R	l X	l X	X	l X
M & R activities:	   					
Flush heater coil with fresh water and drain	D	ם	X	X 	X	X
Dry heater coil with com- pressed air	D		i x	X	×	X
Repair heater coil leaks where necessary	R	R	X	X   X   100 MC NO NO NO NO NO	X   X	

NOTE: D = Deactivation
P = Periodic
R = Reactivation

Pfr = Preferred Min = Minimal

yr = year d = days

HOT WATER HEATING SUPPLY   AND RETURN PIPING IN	   Pfr	   Min	D<1yr	D>1yr	D<1yr	D>1yr
BUILDINGS	PIL	MT'	R<45d	R<45d	R>45d	R>45d
Inspect:						
Supply and return lines for leaks	D P	   D   P	X   X	X   X   X	X 	X
	R	R	x		X   X	X   X
Supply line for missing or deteriorated insula- tion	D P	   D   P	X	X X X	X	X
	R 	l R	l x		X   X	X   X
M & R activities:						一
Repair supply and return	D	   D   P	X   X	X   X   X	X   	X   X 
	R	R	×		X	X
Replace missing or dete-   riorated supply line in-   sulation	D P	D   D   P	X   X	X   X   X	X   X	X
	R	l I R	x	]	X   X	X X
Flush supply and return lines with fresh water	D/R	D/R			X   X	X
Orain supply and return	D	D			X	X
ory supply and return ines with compressed air	D				X	X
Cover all supply and re-   curn line openings with   caps, blank flanges, or   cooden plugs	Ď	D			X   	X   

NOTE:

D = Deactivation
P = Periodic
R = Reactivation

Pfr = Preferred Min = Minimal yr = year d = days

d yr

			医直胱体 计模型	****			ı
HOT WATER HEATING SUPPLY			D<1yr	D>1yr	D<1yr	D>1yr	
AND RETURN PIPING IN BUILDINGS (continued)		Min 	   R<45d	  R<45d	R>45d	R>45d	
Coat all pipe threads and finished surfaces left exposed by disconnecting for draining with a film of graphite and oil	<b></b>	D			X	X	
Remove all preservatives from flanges, nipples, and threaded openings	R	R		       '	X	X	 
Remove all blanks in sup- ply and return lines and reconnect piping	R	R			X	X	
	72 4 4 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	おお茶を					į

NOTE: D = Deactivation P = Periodic

R = Reactivation

Pfr = Preferred Min = Minimal

yr = year d = days

HOT WATER CIRCULATION PUMP AND MOTOR	   Pfr   <sub> </sub>	!   Min 		D>1yr    R<45d	İ	D>1vr    R>45d
Inspect:						
Pump for leaks	D   P   R	   D   P	X   X	X   X   X	j X       X	X     X
		R	x		i x	x
Pump for proper operation	D P		X   X	X   X   X	X   	X   X
	R	i I R	i x	ļ ļ	X X	X
Pump and pump motor for corrosion	   P 	P			X	X   X
M & R activities:	== <del></del>					
Repair or replace pump where necessary	D P R	   D   P	X   X	X   X   X	X	X   
		Ŗ	X		X   X	X   X
Flush pump with fresh water and drain	D	   D 			X	X
Coat interior surfaces with engine preservative oil MIL-L-21260, grade 2, by spraying or fogging while slowly actuating the pump	D	D			X     	X
Cover shaft with compound   preservative, Specifica-   tion MIL-C-11796B, class   2	D <sub>.</sub>	D		     	X   X 	X   X

NOTE:

D = Deactivation P = Periodic R = Reactivation

HOT WATER CIRCULATION PUMP AND MOTOR (con- tinued)	Pfr	Min	D<1yr    R<45d	1	1	1 -
Seal all pump openings with pressure sensitive tape, MIL-T-4053B	∖ <b>D</b>	D   			X	<b>X</b>
Clean and paint pump and motor where necessary	D/P	D P		     	X	X
Lubricate pump and pump motor	P R	PR		X	X	X
Remove pressure sensitive tape from pump openings	R	R			X	X
Remove all internal and external protective coat- ings	R	R	     	     	X	X
Hand test pump for ease of rotation	R	R				X
Perform low voltage ohm- meter test on pump motor for proper insulation	R				X   X 	X
Perform low voltage ohm- meter test on 10% of pump motors for proper insula- tion		R			X     	X
Dry in a suitable oven any pump motor having low insulation resistance	R	R	 		X   	X
Hand test pump motor for ease of rotation	R	R.				X
Test run pump motor under		R	 		   	X

NOTE:

D = Deactivation
P = Periodic
R = Reactivation

PRESSURE-REDUCING STATION	   Pfr   District	Min		1 - 3	D<1yr    R>45d	D>1yr    R>45d
Inspect:		ļ	170	1	Photo gran	1
Pressure-reducing station  for leaks	D P R	   D .   P   R	X   X     X	X   X   X	X     X   X	X
Pressure-reducing station  for proper operation 	D P R	D P R	X X X	X   X   X	X     X   X	X
M & R activities:	TOP-THE SET SET THE S	n 160 az az az az 9   	*******		 	*************************************
Repair pressure-reducing	D P R	D P	X   X   X	X   X   X   X	X       X   X	X
Repair or adjust	D P R	D P R	X X X	X   X   X	X   X   X	X
Replace pressure-reducing   valve where necessary	D   P   R	D P R	x x	X X X	X   X   X   X	   X
Open and drain equalizing   pipe between diaphragm   chamber and low side of   system	D	D	ditto were men o'the spec haar	100 mm tru mm mm mm mm mm mm mm mm mm mm mm mm mm	   X 	   X
Open all valves and clean   internally	D	             			X	   X

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D = Deactivation P = Periodic R = Reactivation

Pfr = Preferred Min = Minimal yr = year d = days

- year - days

PRESSURE-REDUCING STATION	∍Pfr	  ⊹Min -	D<1yr	D>1yr	D<1yr	D>tyr
(continued)			R<45a	R<45d	R>45d	R>45d
Loosen lower section of pressure-reducing valve to provide drainage	D	<b>D</b>			<b>X</b>	<b>X</b>
Coat all working parts and machined surfaces with a light oil coating	D	D		. 137	×	X 
Open vents on the low pressure side of the pressure-reducing valve	D	D			X	X
Close vents on the low pressure side of the pressure-reducing valve	R	R			X	*
Reconnect all piping	R	R	the state and they have seen		X	X

### BUILDING HEATING SYN THE

NOTE: D = Deactivation
P = Periodic
R = Reactivation

			***			======================================
RADIATOR	   Pfr	   Min	D<1yr	D>1yr	D<1yr	D>1yr
植物 医乳球 医乳球 医乳球 医乳球 医乳球 计算程序 建二苯基苯	i		R<45d	R<45d	R>45d	R>45d
Inspect:	]	l, , , , ,	1	1		
Radiator for leaks	l D		į x	X	X	X
	P	D   P		X	X 	X
	R 	l   R	X		X   X	X   X
Radiator controls for	D		X	X.	X	X
proper operation	P	D   P	1	   X	X	l X
	į R	R	i x	İ	j X	X
				, mi == == == == == == == ,		
M & R activities:	   ======					
Repair or replace radia- tor where necessary	D P	l D	l X	X	X   X	X   X
cor where hecessary	i	P		x	İ	i
	R	R	X		X X	X
Repair radiator controls	D		X	X	X	X
where necessary	P	D   P	<u> </u>	   X	X	) X
	R	l R	! ! X		i x	X
Drain radiator						
بين بين ميد وين وين وياد على عند بين است حيد التي بين التي وين على عند الله الله الله الله الله الله		D 	 	 	X	X
Ory radiator tubes using compressed air	D	   	   	 	) <b>X</b>	i x !
Clean radiator fins	l P l R		     X	X		
		R	^	×	ł X I	X   X
经工业 化氢氢苯基苯甲酚 医乳毒素 经国际 的复数 计正式设计	=====	****		~====		

D = Deactivation
P = Periodic
R = Reactivation NOTE:

			74 以 15 15 16 16 16	***		
STEAM SUPPLY AND RETURN PIPING IN BUILDINGS	   Pfr 	   Min 	D<1yr    R<45d	D>1yr    R<45d	D<1yr    R>45d	!
Inspect:	ļ	1		1	1	1
Steam and return lines   for leaks 	D   P   R	   D   P   R	X   X   X   	X   X   X	X       X   X	X     X   X
Steam lines for missing  or deteriorated insula-  tion	D   P	D P	X	X	X   X   X	X   X   X
Steam and return line pipe supports for damage or deterioration	D/P     R	D   P   R	X       X	X	X   X   X	X X X
M & R activities:	 	 			 	
Repair steam and return	D   P     R	   D   P   R	X   X   X   	X   X   X   X	X     X   X	X       X   X
Replace missing or deteriorated steam line in- insulation	D P	D P	X   X   X	X   X   X	X   X   X	X   X   X
Repair or replace damaged or deteriorated steam and return line pipe supports	,	D P R	X   X	X   X   X	X   X   X	X   X   X
Flush steam and return lines with fresh water	D/R	D/R			X   X 	X

NOTE:

Pfr = Preferred
Min = Minimal
yr = year
d = days D = Deactivation
P = Periodic
R = Reactivation

STEAM SUPPLY AND RETURN PIPING IN BUILDINGS (continued)	Pfr		1	D>1yr    R<45d	1	
Orain steam and return	, D,	D			X 	<b>X</b>
Ory steam and return lines with compressed air	D	<b></b>   			X	X
Cover all steam and re- turn line openings with caps, blank flanges, or wooden plugs	D	D			X   	X
Coat all pipe threads and finished surfaces left exposed by disconnecting for draining with a film of graphite and oil	D	D			X     	X
Remove all preservatives from flanges, nipples, and threaded openings	R	R			X   X 	X
Remove all blanks in steam and return lines and reconnect piping	R	   R 			X   X	   X 

D = Deactivation P = Periodic R = Reactivation NOTE:

Pfr = Preferred Min = Minimal yr = year d = days

STEAM SUPPLY LINE TRAPS AND STRAINERS	   Pfr 	Min	l	D>1yr    R<45d		1
Inspect:	)			1		ĺ
Traps for proper opera- tion	D P R	D P R	X   X     X	X   X   X	X     X   X	X     X   X
M & R activities:		 				
Repair or replace traps where necessary	D P	   D   P.   R	X   X     	X   X   X   X	X       X   X	X       X   X
Disassemble and clean strainers	   D   P   R	   D   P   R	   X   X 	X   X   X	   X     X   X	X
Flush traps and strainers with fresh water and drain	D	D			   X 	X   

#### APPENDIX H:

### INSPECTION AND M&R CHECKLISTS FOR AIR-HANDLER UNITS (AHUs)

#### General Notes

Permanent filters should be removed and cleaned. Throw-away filters should be discarded if dirty, and the filter bank should be tagged with the size and type of filter required for reactivation of the system. Belts should be detensioned, removed and hung by the motor/drive system. Tags should be attached to pulleys with belt size and type specifications for easy determination of proper replacement during reactivation.

Fans and motors should be manually rotated during periodic inspection to ensure smooth rotation. If the equipment does not run smoothly, repairs and preservation should be performed. A note should be made of the deficiency, at a minimum. Fans, dampers, coils, and associated equipment should be cleaned prior to deactivation to minimize mold, mildew, and other microbial growth during the inactive period. These precautions should help minimize potential indoor air quality problems when the building is reactivated.

Every attempt should be made to prevent moisture damage to motors, bearings, and associated components of the AHU. If the risk of flood is significant, the motor should be removed and stored in an appropriate container to prevent moisture damage. Periodic inspections should include checking all components for water and pest-related damage.

#### Subcomponent List for Air-Handler Units

Centrifugal Fan Axial Fan Fan Housing Weatherproof Fan Housing Fan Motor Fan Beit Fan Shaft Bearings Replaceable Filter Elements Ducting Dampers **Damper Actuator Motors** Fire Dampers Colls Controls Temperature Sensors Bird Screens

## AIR HANDLER UNITS - SPACE CONDITIONING

NOTE:

D = Deactivation P = Periodic R = Reactivation

Pfr = Preferred Min = Minimal

yr - Year

= Days

CENTRAL AIR HAND- LERS & VENTILATION	?fr	Min	D<1yr R<45d	D>iyr R<45d	D<1yr R>45d	D>1yr R>45d
EQUIPMENT  INSPECT FOR:	eer ton me wa war hie				また 日本 日本 日本 日本 日本 日本 日本 日本 日本 日本 日本 日本 日本	
Outside air intake birdscreen damage and holes allowing animal intrusion	D/R P	D/R P	Х	X X	. X	X X
Fans, motors, ducts for moisture, cor- rosion, or mold and mildew	D/R	D/R	х	X	X.	x x
Fans, motors for proper operation and smooth rotation	D/R P	D/R	x	X X	х	X X
Electrical contacts controls and equipment for corrosion	D/R P	D/R	х	X X	х	××
Fire stat and fire dampers for proper operation	D/R P	D/R	х	X X	×	X X
Drive belts for tension and wear requiring replace- ment	D/R	R	х	X	х	х
Filters for clean- liness	D/R	R	X	Х	X	Х
M & R ACTIVITIES						
Repair OA intake birdscreen as required	D/P/R	D/R	x	X	х	X

### AIR HANDLER UNITS - SPACE CONDITIONING

NOTE:

D = Deactivation
P = Periodic
R = Reactivation

Pfr = Preferred Min = Minimal

CENTRAL AIR HAND- LERS & VENTILATION	Pfr	Min	D<1yr	D>1yr	D<1yr	D>1yr
EQUIPMENT (CONT.)	4 .		R<45d	R<45d	R>45d	R>45d
M & R ACTIVITIES						
Seal outside air intake by insuring that dampers are fully closed. Label control panel	D		·	х		x
Preserve motor to prevent corrosion & remove or pack to insure dry storage				X		Х
Detension belts and lube bearings. Put preservative on un- painted machined areas		ם	x	х	x	x
Clean fan blades, housing, bearings, dampers. Replace or refresh filter media	D/R	R	x	x	х	x
Lubricate dampers, actuators as required	D/R			х		x
Install motor, lubricate motor, fan bearings	R		) janta (	х		х
Retension all belts	R	R	x	X	х	X

### AIR HANDLER UNITS - SPACE CONDITIONING

	-				M	
CENTRAL AIR HAND- LERS & VENTILATION		Min	,	D>1yr	<u> </u>	
EQUIPMENT (CONT.)			R<45d	R<45d	R>45d	R>45d
M & R ACTIVITIES	100 May 201 May 201					
Log any equipment degradation and retreat as required during inspection. Remove any nests or other materials resulting from animal or human intrusion & reseal equipment. Remove moisture from electrical components.	P	a de la companya de l		X	X	X
Repair or replace fire stat if re- quired	R	R	x	х	x	х
Open outside air intakes and clear debris	R		х	x	х	х
Perform low volt- age ohm-meter test on motor for ade- quate electrical insulation	R		x	х	x	x
Dry motors with low insulation resistance. Assemble, lubricate and reinstall or replace	R	R	x	х	х	х
Run fan & check for proper & smooth operation	R	R	x	Х	x	X
· · · · · · · · · · · · · · · · · · ·			<del></del>			

### AIR HANDLER UNITS - VENTILATION

NOTE:

D = Deactivation
P = Periodic
R = Reactivation

Pfr = Preferred Min = Minimal

				d = D	ays	
MECHANICAL ROOM EXHAUST FAN	Pfr	Min	D<1yr R<45d	D>1yr R<45d	D<1yr R>45d	D>1yr R>45d
INSPECT FOR:						
Birdscreen holes or other damage	D/R P	D/R	х	X X	X	X X
Fan and motor pro- per operation by manual rotation	D P R	R	x x	X X X	x x	X X X
M & R ACTIVITIES						
Repair/replace birdscreen	D/R P	D/R P	X	X X	Х	X
Lubricate motor and fan bearings	D/R P	D/R	х	X X	X	X X
Clean fan blades, housing, and fire dampers	D/R	R	х	Х	х	х
Clean, lubricate bearings, check wiring for damage	R		x	X	x	х
Replace or repair motor, bearings as required	R	R	x	X	x	х
Run fan and insure proper operation	R		x	x	х	х

### AIR HANDLER UNITS - VENTILATION

NOTE:

D = Deactivation

P = Periodic R = Reactivation

Pfr = Preferred

Min = Minimal
yr = Year
d = Days

فند کے در ایس بنی بیس میں وقع کا میں اور دیا ہے۔				Q ~ D	~y~	
POWER ROOF VENTILATORS	Pfr	Min	D<1yr R<45d	D>1yr R<45d	D<1yr R>45d	D>1yr R>45d
INSPECT FOR:	No. 1806 hart 2004 July der		化多二苯基酚 医黄色	医神经性性疾病 电阻		<b>过森明你决定途</b>
Birdscreen holes or other damage (annual periodic)	D/R P	D/R	X	X	Х	X X
Fan and motor for proper operation by manual rotation	D/R P	R	X	X X	x	X X
Fire stat, damper for proper opera- tion	D/R	D/R	X	х	x	X
M & R ACTIVITIES					RESECUE	
Repair and replace birdscreen	D/R P	D/R	X	X X	**************************************	X
Detension belt and lube motor and bearings	D	D		х		x
Clean fan blades and housing	D		Х	Х	х	X
Lubricate fire dampers as required	D/R	D/R	x	x	х	X
Repair/replace fire dampers and fire stat as required	R	R	х	×	х	x
Rotate fan shaft and lube bearings as required	P	Þ		x		Х

### AIR HANDLER UNITS - VENTILATION

NOTE: D = Deactivation

P = Periodic

R = Reactivation

Pfr = Preferred

Min = Minimal

yr ≔ Year

d = Days

A		,,, ,				
POWER ROOF VENTILATORS (CONTINUED)	Pfr	Min	D<1yr R<45d	D>1yr R<45d	D<1yr R>45d	D>1yr R>45d
M & R ACTIVITIES			######## <b>#</b>			# # # # # # # # # # # # # # # # # # #
Replace/repair motor, belt, bear- ings as required	R	R	Х	х	Х	x
Install and adjust new belt and lubri- cate bearings	R	R		х		x
Clean fan blades and gravity dampers	R		х	х	х	x
Run fan and check for proper opera- tion	R		х	х	х	х

### THEATER, PX, GYMNASIUMS

### AIR HANDLER UNITS - HUMIDITY CONTROL

D = Deactivation

Pfr = Preferred

P = Periodic

Min = Minimal

R = Reactivation

AIR HANDLERS & VENTILATION	Pfr	Min	D<1yr	D>1yr	D<1yr	D>1yr
EQUIPMENT		* = = # # # #	R<45d	R<45d	R>45d	R>45d
INSPECT FOR:						
Outside air intake birdscreen for damage and holes allowing animal intrusion	D/P/R	R	x	x	х	x
Fans, motors, ducts for moisture, cor- rosion, or mold and mildew	D/P/R	D/R	х	х	х	х
Fans, motors for proper operation and smooth rotation	D/P/R	Ř	x	х	х	х
Electrical con- tacts, controls, and equipment for corrosion	D/P/R	R	×	х	Х.	х
Fire stat and fire dampers for proper operation	D/P/R	D/R	х	X ·	x	х
Drive belts for tension and wear requiring replace- ment	D/P/R	R	х	х	х	х
Filters for clean- liness	D/P/R	R	X	Х	Х	Х
M & R ACTIVITIES						
Repair OA intake birdscreen as re- quired	D/P/R		X	X	x	X

### THEATER, PX, GYMNASIUMS

### AIR HANDLER UNITS - HUMIDITY CONTROL

NOTE:

D = Deactivation

P = Periodic

R = Reactivation

Pfr = Preferred

Min = Minimal

		·			ays	
AIR HANDLERS & VENTILATION	Pfr	Min	D<1yr	D>1yr	D<1yr	D>1yr
EQUIP. (CONT.)			R<45d	R<45d	R>45d	R>45d
M & R ACTIVITIES						
Clean fan blades, housing, bearings, dampers. Replace or refresh filter media	D/R	į <b>k</b>	x	x	x	х
Lubricate dampers, actuator as required	D/P/R			х		х
Log any equipment degradation and retreat as required during annual inspection. Remove any nests or other materials resulting from animal or human intrusion and reseal equipment. Remove moisture intrusion	P		x	x	x	х
Retension all belts	D/P/R	D/P/R	х	х	х	х
Repair or replace fire stat if re- quired	D/P/R	R	х	х	х	x
Clean OA intake of debris	D/P/R	R	х	x	х	х
Run fan and check for proper and smooth operation	D/P/R	D/R	x	х	х	x

### THEATER, PX, GYMNASIUMS

### AIR HANDLER UNITS - HUMIDITY CONTROL

NOTE:

D = Deactivation

P = Periodic

R = Reactivation

Pfr = Preferred Min = Minimal yr = Year

→ Days

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AIR HANDLERS & VENTILATION EQUIP. (CONT.)	Pfr	Min	D<1yr R<45d	D>1yr R<45d		D>1 yr R>45d
M & R ACTIVITIES						
Perform low voltage ohm-meter test on motors for adequate electrical insulation			x	X	X	x
Dry motors with low insulation resistance and reinstall or replace	R	·	х	x	x	х

### ROLLING PIN BARRACKS

### AIR HANDLER UNITS - VENTILATION

NOTE: D = Deactivation

P - Periodic

R = Reactivation

Pfr = Preferred

Min = Minimal

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LAUNDRY EXHAUST FANS	Pfr	Min	D<1yr	D>1yr	D<1yr	D>1yr
			R<45d	R<45d	R>45d	R>45d
INSPECT FOR:						
Birdscreen holes or other damage	D/R P	D/R	х	X X	x	x x
Fan and motor proper operation by manual rotation	D/R	R	х	х	×	х
Damper	D			Х		Х
M & R ACTIVITIES						
Repair/replace birdscreen	D/R P	D/R	x	X X	X	X X
Remove motor, pre- serve w/appropriate lubricant and put in dry storage	D			x		х
Clean fan blades and housing	D/R		х	х	x	х
Fix damper closed & label accordingly	D			х		х
Lubricate dampers	D/R	R	Х	Х	Х	х
Install motor, align, adjust and lubricate	R			х		х
Replace or repair motor and bearings as required	R	R.	х	х	x	х
Run fan and ensure proper operation	R	R	Х	X	x	х

### AIR HANDLER UNITS - FIRE SAFETY EQUIPMENT

NOTE:

D = Deactivation

P = Periodic R = Reactivation

. Pfr = Preferred

Min = Minimal

FIRE DAMPERS	Pfr	Min	D<1yr R<45d		7	D>1yr R>45d
INSPECT FOR:						
Proper operation of dampers, link-ages and controls (annually)	D/R P	- D/R P	X	X X	х	X X
M & R ACTIVITIES						
Repair/repaint/lub- ricate components as required to in- sure safe operation	D/P R	R	х	X X	X	X X

#### APPENDIX I:

#### INSPECTION AND M&R CHECKLISTS FOR REFRIGERATION SYSTEMS

#### General Notes

Deactivation procedures are similar to the standard winterization that the installation performs annually to ensure that the refrigeration system sustains no major damage including corrosion, refrigerant loss, motor degradation, or moisture ingestion. Additional care must be taken to clean, paint, or otherwise protect all exposed surfaces susceptible to corrosion. All water-side plumbing should be drained to prevent freeze or corrosion damage. Dielectric couplings should be intact between all dissimilar metal components in the plumbing loops. Pumps and motors should be lubricated and protected from the elements.

Refrigerant should be pumped down into the receiver. Recover any excess refrigerant. Refrigerants should not be purged to the atmosphere. Check receiver connections and valves for leaks, and replace or repair any leaking ones to avoid refrigerant loss. The compressor crankcase should be filled with the normal operating oil to cover the seal and main bearings. The compressors need to be appropriately tagged to prevent operation until the excess oil is removed. The compressor valve plate and housing should be flooded with oil.

Disconnect the electrical service from chillers and appropriately tag. Switchgear should be sealed and preserved using procedures similar to those outlined in the section on the interior electrical building component (Volume I, Chapter 4).

Perform annual inspection to identify and correct any significant deterioration resulting from animals, moisture, vandalism, or preservation failure. Equipment should be retreated as needed. Log any other degradation for later action.

During reactivation, make sure that all protective coatings and coil, fan, and opening covers are removed. The electrical connections, valves, pumps, fans, and coils should be checked for corrosion and proper operation. Excess oil must be properly drained from the compressor crankcase. Leak tests should be repeated to ensure that the compressor is maintaining its charge. Stringent requirements for avoiding chlorofluorocarbon (CFC) leaks during chiller servicing and operation will most likely be required by State or Federal law at the time of reactivation.

### Subcomponent List for Refrigeration Equipment

Reciprocating Compressor/Motor
Evaporator
Condenser Coils
Cooling Tower
Expansion Valve
Refrigerant Loop Plumbing
Plumbing Insulation
Axial Condenser Fan/Motor
Motor Control Center
Controls
Temperature Sensor
Condenser Water Plumbing Loop, Pump, Controls
Isolation Valves
Cylinder Valves and Unloaders

### REFRIGERATION SYSTEMS - BUILDING AIR CONDITIONING

D = Deactivation P = Periodic NOTE:

R = Reactivation

Pfr = Preferred

Min = Minimal

yr = Year

ď ⇒ Days

					ays	
MECHANICAL REFRIGERATION EQUIPMENT	Pfr	Min	D<1yr R<45d	D>1yr R<45d	D<1yr R>45d	D>1yr R>45d
					*****	
INSPECT FOR:						
Coils, surfaces for corrosion	D/P/R	D/P/R	х	x	Х	х
Lubricant condition and level for motors and other rotating components	D/R	D/R	X	х	х	х
Seals, plumbing, drains for leaks and damage	D/P/R	D/P/R	х	х	х	х
Electrical con- tacts, controls and materials for corrosion	D/P/R	D/P/R	x	x	х	х
M & R ACTIVITIES					<b>以其名 6 年 6 年</b>	
Pump down refriger- ation system, store refrigerant in re- ceiver. Excess re- frigerant shall be properly placed in storage cylinders		D <sub>.</sub>	x	x	х	х
Test receiver con- nections and valves for leaks	D/R	D/R	x	х	х	х
Wire brush and clean cooler and condensor coils w/ compressed air	D		х	х	х	х

## REFRIGERATION SYSTEMS - BUILDING AIR CONDITIONING

NOTE:

D = Deactivation

P = Periodic R = Reactivation

Pfr = Preferred

Min = Minimal
yr = Year
d = Days

		~=====				
	Pfr	Min	D<1yr	i -	D<1yr	- 1
(CONTINUED)		<u> </u>	R<45d	R<45d	R>45d	R>45d
M & R ACTIVITIES						
Fill crankcase w/ oil to cover seals and main bearings— use oil used in normal operation of machine. Red tag compressor w/:"Do not operate until excess oil has been removed." Flood valve plate and seal housing w/same oil	D	מ	x	x x	x	x x
Block off or cover all air discharge and intake open- ings, dampers to coils	D	D	x	x x	×	x x
Disconnect equip- ment from power and tag "discon- nected from elec- trical service"	D	ם	×	x x	x	x x
Remove fuses, wrap in waterproof paper and attach to equipment. Label fuse and machine appropriately	ם		x x	х	x x	х
Remove blocking and other protective coatings on in-active equipment	R	R	x	х	х	х

### REFRIGERATION SYSTEMS - BUILDING AIR CONDITIONING

NOTE: D

D = Deactivation

P = Periodic

R = Reactivation

Pfr = Preferred

Min = Minimal

yr = Year

d = Days

					ays	
MECHANICAL REFRIGERATION EQUIPMEN'S (CONTINUED)	Pfr	Min	D<1yr R<45d	D>1yr R<45d	1 - 1	D>1.yr R>45d
and some year speek hope have been black they shall been some large large large been been street been street	~~~~			- 17450	K/430	日本田田田田田田田田田田田田田田田田田田田田田田田田田田田田田田田田田田田田
M & R ACTIVITIES						
Drain all water filled condensors, cooling towers. Leave drain open, put preservative lubricant on plug and threads to prevent corrosion. Blow coils out with compressed air. Attach plug to coil with wire		ס	x	x	x	x
Log any equipment degradation and retreat as required during annual inspection. Remove any nests or other materials resulting from animal or human intrusion and reseal equipment. Remove moisture intrusion from electrical components	J			x		×
Drain preservative oil from bearings and refill w/appropriate grade oil	R	R	х	X X	x	X X
Replace fuses and reconnect to power source	R		x	x	x	x

## REFRIGERATION SYSTEMS - BUILDING AIR CONDITIONING

NOTE: D = Deactivation

P = Periodic

R = Reactivation

Pfr = Preferred Min = Minimal

yr = Year

d = Days

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MECHANICAL REFRIGERATION EQUIPMENT	Pfr	Min	D<1yr	D>1yr	D<1yr	D>1yr
(CONTINUED)		,	R<45d	R<45d	R>45d	R>45d
M & R ACTIVITIES						
Open compressor discharge, suction, and refrigerant line valves (except liquid line valve)	R	R	x	x	x	х
Reconnect control wires and fuses. Connect to electric service, verify operation	R	R	х	Х Х	х	x x
Check system for refrigerant leaks; eliminate leaks	R	R	х	х	х	х
Retension all belts	R	R	x	x	X	×
Replace plugs in water coil and/or cooling tower	R	R	Х	Х	х	х
Reconnect water supplies	R	R	Х	Х	Х	х
Check control ad- justments and con- tinue leak testing Recharge w/refrig- erant as required	R	R	x	x	х	х

#### APPENDIX J:

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#### INSPECTION AND M&R CHECKLISTS FOR MESS HALL EQUIPMENT

#### General Notes

The procedures given here are for equipment that is unique to mess halls. Procedures for equipment and fixtures that are present in general building types are not given here. References to the general component checklists, such as plumbing, are given in the mess hall checklist as needed.

The plumbing procedures are similar to those used for general building types with some additional types of fixtures. The additional plumbing fixtures to be included are dishwashers, vegetable peelers, can washers, pot sinks, cook sinks, scullery sinks, and coffee stations. As in the procedure for general buildings, the mess hall plumbing system will be completely drained and dried with compressed air. The Minimal procedures eliminate inspections. It should be noted that this may result in the seepage of sewer gas into the building.

The gas distribution procedures are the same as those given in the gas distribution section. The gas valve to the building will be closed and locked, and pressure will be relieved on gas-fired appliances such as stoves, ovens, deep fryers, and grills.

All electric motors used in convection ovens and other mess equipment should be preserved to avoid moisture damage to the windings or corrosion to bearings and other moving parts. Refrigeration equipment should be carefully drained, cleaned, and disconnected from the electrical service. Coils, shelves, and door seals should be cleaned of all dirt and grease. All components that could suffer corrosion during the inactive period should be coated with a nontoxic preservative acceptable for food-handling equipment.

All efforts should be made to ensure that refrigeration equipment is properly preserved to prevent any refrigerant leakage. Personnel performing periodic equipment inspection and reactivation should be aware of any new requirements for avoiding refrigerant leakage to the atmosphere that have been required after this document was developed.

### List of Mess Hall Subcomponents

This checklist includes only those items specific to mess halls. Other components (e.g., plumbing system) are addressed in the checklists for general building types.

Can Washer Coffee Station Cook Sink Dishwasher Pot Sink Scullery Sink Steam Table Vegetable Peeler Gas Stoves Gas-fired Ovens Gas-fired deep Fryers Gas Grills Other Gas-Fired Kitchen Equipment Ice Makers Upright Freezers Walk-in Freezer Walk-in Refrigerator Upright Refrigerators Electric Food Warmers Convection Ovens

### MESS HALL EQUIPMENT

NOTE: D = Deactivation

P = Periodic R = Reactivation

Pfr = Preferred

Min = Minimal

yr = year d = days

	===	=====	======	=======	=====	======
PLUMBING	Pfr	Min	D<1yr     <b>R&lt;45d</b>	]		D>1yr          R>45d
**************************************	=====					======
Inspect for:	į					
	•	====	•	======		
Items listed in the  general building type  plumbing checklist 	P   	     	<b>X</b>     	X	<b>X</b>   	X   
	====	=====				-
M&R activities as required:	İ	İ		   =======	   ======	  ===
Follow procedures in the general building type plumbing checklist. Insert the following procedures after "Drain lines to and from each drinking fountain and associated tank"	D     	D D I	X     	X 	X       	X         
Drain lines to and from  each can washer	D	D   	X   ·	X	X   	X   
Drain lines to and from   each vegetable peeler	   D 	   D 	X	X   X	   X 	   X 
Drain lines to and from each pot sink	D	<b></b>   D 	   X 	X	   X 	X   X
Drain lines to and from each cook sink	 D		X	X	   X 	   X 
Drain lines to and from each coffee station	D	D	   X 	   X	   X 	X
Drain lines to and from each dishwasher	D	<b>d</b>	X   X	X   X	X	X

	PEZZE		======     D<1yr		•	======   D>1yr
PLUMBING (CONT'D)	Pfr	Min	  R<45d	_	Ī	R>45d
	=====		######		======	
Drain lines to and from each scullery sink	D 	D	X 	X 	X   X	X   
Follow procedures in the general building type plumbing checklist. Insert the following procedures lafter "Replace pressure regulator, washers, and packing for each drinking fountain. Replace unit if inecessary."	R	R	X 	X	X	X
Replace washers and   packing for each can   washer	R	R   	X	X	   X   	
Replace washers and	R   R	R	X   X 	X   X	X   X 	X   X
Replace washers and packing for each pot sink	R   	R   R	X   X	X   	X   X 	X
Replace washers and packing for each cook sink	R	R	X     X	X	   X 	
Replace washers and		R	X	X	   X   	   X   
Replace washers and	R	R	X	X	X	X
Replace washers and	R   	R	X	X	X	X
					=	=====

		l manage				
  GAS-FIRED EQUIPMENT	   Pfr	Min	D<1yr	D>1yr		
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	  D/P/R   	  D/P/R 	   <b>X</b> 	   <b>X</b> 	   X 	x
involves shutting off the  gas and relieving pressure  from all gas-fired  appliances.	i   	 	     			
	~==#=		****			
  MISCELLANEOUS 	 	  - 	 	 	<b>i</b> .   <b>i</b>	   
					****	*****
Drain steam tables and blow  out with compressed air to  remove moisture	D 	D I	X   	<b>X</b>   	<b>X</b>   	X   
REFRIGERATION - WALK-IN, SELF CONTAINED, ICEMAKERS	 	       == = = =       	 	  -   257 853 153 300 005 00C  -  -	  -   Call Safe Mill Mail Paul Safe    -	 
· · · · · · · · · · · · · · · · · · ·	****			*****	=====	
Inspect for:	 		 	 	 	 
Coils, surfaces for	  D/P/R 	į	j	x	X	   X 
Lubricant condition  and level for motors and  other rotating components	     D/R   	     D/R 		x	     X 	     X 
Door seals, plumbing, drain for leaks/damage	    D/P/R	D/P/R	     X	x	x	     X
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					l ======	
  REFRIGERATION (CONT'D)	   Pfr	Min	D<1yr 	D>1yr	D<1yr	D>1yr 
	•	***	R<45d	•	R>45d	R>45d
M&R activities as required:	=====	=====	   ======	=====		   =======
Clean all interior surfaces  shelves and coils 	   D 	D L	   X 	   X 	)   X 	   X 
Clean, dry and coat all  meat hooks, defrost dishes  with corrosion preventive  non-toxic preservative for  food handling equipment	     D 	D	   X	   X   X	   X 	   X 
Wrap coated components with  greaseproof paper	D	     D	x	x	X	X
Clean door gaskets with   soap and water, dry	D	<b>  D</b>	X	X	X   X	X
Place paper between door   gasket and cabinet, close	     D	     D	X   X	X   X	X   X	X
Disconnect equipment from   power & tag "disconnected"	   D	D	X   X	X	X	X
Remove fuses, wrap in  waterproof paper and attach  to equipment, label	D	444   1144   444   444	X	X   X   .	X   X 	X   X 
Clea.: evaporator and con-  densor coils and dry with  compressed air	D		   X 	     X 	   X 	     X 
Reapply preservative as required to prevent corrosion	     P 	P		     X 		     X 
Check door gaskets, hinges, latches, renew as required	   R     R	   R	x	X	X	X

REFRIGERATION (CONT'D)	Pfr	Min	D<1yr R<45d	•	-	D>1yr R>45d
大学生主义中国和约里的共和国的基础。	****					====
Remove paper and protective coatings for equipment	R	R	X	X	   X	X     X
Replace fuses and reconnect to power source	R		X	X	×	   X   
Repair insulation, joints and interior finish as reqd	R	R	X	<b>X</b>	×	<b>x</b>
Check system for refriger- ant leaks; eliminate leaks	R	R	×	X	)     X	x
Retension all belts	R	R	X 	X	X	X     X
Reconnect water supplies	   R 	   R 	   X 	X	   X 	   X   
Check control adjustments   and continue leak testing   Recharge with refrigerant   as required	     R 	     R 	   X 	   X 	     X	   X 
AIR HANDLING UNITS AND MECHANICAL REFRIGERATION FOR AIR CONDITIONING			== = = = = = = = = = = = = = = = = =			
  =:==================================	   #===== 	   <b>===</b> == 	   ===== 	  ====== 	 	   ************  
Items listed in the   general building air   handler and mechanical   refrigeration checklists	  D/P/R. 	=====     D/P/R 	<b>           </b> 	<b>X</b>	<b>                                   </b>	=====     X
			İ		   ====== 	   ======
Follow procedures in the general building type air handler unit and mechanical refrigeration checklists		D/P/R		X   X   ·	********   X 	*********
	***			*****	******	

#### APPENDIX K:

#### INSPECTION AND M&R CHECKLISTS FOR STEAM HEATING SYSTEM

#### General Notes on Boiler Plant Deactivation

**Boilers** 

Fire the boiler under normal startup procedure and establish a 50 pounds per square inch gauge (psig) drum pressure. Secure the boiler and when the pressure decays to 20 psig, drain immediately under air. As soon as possible, open the drums to allow air to circulate for drying of all internal surfaces. Clean the boiler internally by turbining or scraping tubes, and scraping and wire brushing drums, shells, and water legs. Deposits of salt, scale, and corrosion are to be removed as much as possible. Exposed exterior surfaces of drums, shells, water legs, and water walls are to be cleaned and painted. Install trays containing a moisture absorbent (silica gel is preferred) into the drums at the rate of 1 lb per 1000 lb/hr steam flow capacity. To ensure against overflow of corrosive liquid due to dessicant swelling, the trays should not be more than three-quarters full of dry absorbent. Attach a source of nitrogen to the steam drum vent, close all other vents and drains, and pressurize the boiler to 10 to 15 psig with nitrogen. With the boiler pressurized, alternately open all boiler drains to purge air from the unit until pressure decays to zero. Repeat this process until only a minimal amount of oxygen is left in the boiler. The unit should now be stored under 5 to 10 psig nitrogen pressure maintained at the steam drum. Warning signs should be attached indicating that the boiler is stored under nitrogen pressure and that complete exhaustion of the nitrogen must occur before anyone enters the drum. Otherwise, death by suffocation may occur.

#### Fans

Fan wheels and shafts will be removed and repainted when required. Casings and housings will be dismantled to the extent necessary to clean and repaint them properly. Bearing surfaces and journals will be protected with adhesive tape PPP-T-60b, Type 1, Grade A, to prevent paint from entering bearing surfaces.

#### Firing Equipment

The firing end of oil burners will be covered with heavy dustproof and waterproof paper tightly fastened in place. All oil will be drained from the pump, valves, lines, and reservoirs. Where the burners can be swung out from the firing port, they will be wrapped with dustproof and weatherproof paper. Openings on oil tanks will be closed. All oil will be removed from the system.

Gas burners will be cleaned to remove gums and sulfates. Louvers will be closed and fastened into position. Primary air openings will be closed.

#### Controls and Instruments

Controls and instruments that are to remain in place, such as gages, thermometers, thermostats, and accessories, will be wrapped individually with waterproof paper meeting the requirements of Federal Specification (Fed. Spec.) UU-P-271d. Wrapping will be sealed with Adhesive Tape PPP-T-60b, Type 1, Grade A. Bonnet and stack-mounted controls will be removed, thermostatic elements cleaned and oiled with Military Standard MIL-L-21260, Grade 2 oil, and replaced in their mounting flange and wrapped as described above. All containers for water, ink, or acid on meters or instruments will be drained

completely and cleaned. Items that are removed will be wrapped as specified above, packed in suitable cartons, properly labeled, and securely attached to the equipment of which they are a part.

#### **Pumps**

Pumps will be flushed with fresh water and drained. Interior surfaces, including such parts as impellers, rotors, pistons, air chambers, vanes, valves, cylinder walls, and oil-air steam or water passages, will be coated with engine preservative oil MIL-L-21260, Grade 2. Preservative will be applied by spraying or fogging while slowly actuating the pump. Shafts will be covered by compound preservative MIL-C-11796B, Class 2. All openings will be sealed with pressure-sensitive tape MIL-T-4053B. Petcocks will be left open. Where there is a possibility that pump pits may be flooded, the pump will be raised above floor level.

#### Feedwater Equipment

Feedwater heaters, deaerators, and vent condensers will be drained completely. The equipment will be opened, and all deposits of silt and scale removed. Equipment will be left open. Vent pipes will be capped and the exhaust head covered. Overflow and oil traps will be cleaned and reassembled.

#### Water Softeners (Zeolite)

For steel pressure type softeners, the softener will be generated in the usual manner, then drained by the lowest drain connection or drain plug. The top manhole, handhole, or plug will be removed. Water lines will be drained and openings capped or blocked off. Softener tanks, valves, and piping will be cleaned and painted. The inside of the tank will be scraped and cleaned above the zeolite bed and painted with a bitumastic-base paint. Manhole covers will be left open, or plugs taken out, and fastened securely to the tank or piping. The brine or salt tanks will be emptied, scraped, washed clean, and painted with a bitumastic base paint both inside and out. Salt will be stored. For wood gravity-type softeners, the softener will be regenerated and filled with water to prevent drying. Pipelines will be disconnected, cleaned, and painted. Multiport valves of either manual or automatic type will be greased internally. Hydraulic valve lines will be drained and cleaned,

#### Tanks and Receivers

Tanks and receivers will be drained, opened, wire brushed, and washed clear of all deposits of mud, scale, and blisters. Manholes and handholes will be left open with plates securely attached to the tank or receiver. Interior surfaces of tanks that cannot be painted will be sprayed or fogged with preservative conforming to specification MIL-C-16173C, Grade 3. Compressed air receivers will be drained and preserved with engine preservative oil conforming to specification MIL-2-21260, Grade 2.

#### Piping in Boiler Plant

All piping will be completely drained, dried, and cleaned. All pipe threads and finished surfaces left exposed by disconnecting for draining will be protected by a film of graphite and oil. All openings will be covered tightly with caps, blank flanges, or wooden plugs, firmly fastened in place.

### Periodic Inspection and M&R During Boiler Plant Layup

If proper procedures have been followed in deactivating the boiler plant, only minimal periodic inspection and maintenance will be required. It is recommended that the inspection and maintenance procedures given here be performed on a semiannual basis. Boilers should be opened and the desiceant

checked and replaced as necessary. Since air will enter the boiler during this operation, it will be necessary to purge this air with nitrogen and reestablish the 5 to 10 psig nitrogen pressure using the procedures discussed earlier for deactivation. Shafts of large rotating equipment should be lubricated and rotated to prevent the occurrence of a permanent set. External surfaces of boilers, tanks, unfired pressure vessels, etc., should be inspected for evidence of external sweating and corrosion, and corrective action taken where necessary. In this connection, it may be necessary to use portable heating equipment at convenient points to keep surfaces above the dew point temperature.

#### **Boiler Plant Reactivation**

#### Boilers

Open the boiler and remove the moisture absorbent trays. Clean the boiler internally by turbining or scraping all tubes and scraping or wire brushing drums, shells, and water legs. Clean, replace and reconnect all drum internals. Clean and reassemble feedwater regulators, water columns, and gages. Reinstall hand hole caps and manhole covers with new gaskets. Clean and inspect combustion chambers and repair brickwork and baffles where necessary. Clean, inspect, and repair where necessary, stacks, breeching, and dampers. Remove all caps and blocks in breeching and stacks. Clean, reassemble, and adjust all control equipment. Check all soot blowers for alignment, ease of operation, and wear of nozzles. Clean, repair and reseat where necessary all blowdown valves. Disassemble, clean, repair, and reassemble all nonreturn and main header valves. Have the boiler inspected internally and externally with hydrostatic test and relief tested and adjusted by appropriate and authorized agency (see Army Regulation (AR) 420-49 and Technical Manual (TM) 5-650).

#### Fans

Clean and lubricate all fan bearings, gears, etc. Check all damper and damper-operating mechanisms on fans. Check chain drives, gear drives, and belt drives for proper operation; adjust, install, or replace as required. Check motors that have been left in place in dry locations for proper insulation resistance by making tests on a 10 percent sampling of the group with a low voltage ohmmeter. Dry in a suitable oven any motors having low insulation resistance. Check motors equipped with sealed bearings that have not been operated for a year or more for ease of rotation. If satisfactory in this respect, give them an observed operation test of 4 hours or more with load, if practicable, to determine fitness for normal duty. Dismantle motors in which there is any indication of unsatisfactory bearing lubrication and install new bearings or contact the manufacturer for instructions.

#### Firing Equipment

Check and clean all oil burner nozzles and orifices. Check oil lines and valves, and clean all strainers. Fill the systems and check the pumps for proper operation. Where separate oil pumping systems are installed and parts have been covered with preservative, clean the pump parts, repack, and reassemble. Check oil heaters and controls. Check oil pump motors as described in the section on fan reactivation. Check oil tanks for water and sediment.

Clean all gas burners and orifices. Remove all blanks and caps in gas line and air openings. Reconnect and assemble all disconnected gas pipes, meters, and controls. Inspect and adjust regulating valves, pilots, safety controls, and gasline valves. Blow out the gaslines to remove water or other accumulations.

# Controls and Instruments

Remove all protective coverings and clean all instruments. Clean and reconnect all control lines. Refill with proper operating fluids. Recalibrate all instruments in accordance with manufacturer's recommendations. Check and restock with new reagents and boiler water testing equipment.

#### Pumps

Remove all internal and external protective coatings. Repack and lubricate bearings. Check by hand for ease of rotation. Check pump motors as described in the section on fan mactivation above. Check pumps for overheating after startup.

#### Feedwater Equipment

Open, clean, and replace all trays in proper alignment. Check all nozzles and distribution orifices. Check the overflow float and water level controls. Check the back pressure, vacuum breaker, and safety valves, and open the vent valve. Clean and check the oil separator and trap mechanism. Refill any loop seals. Remove all protective coatings from flanges, machined surfaces, and threads of all tapped openings. Clean, inspect, and replace as necessary gage glasses and thermometers.

#### Water Softeners (Zeolite)

For steel pressure type softeners, replace the zeolite mineral that has been lost to bring the bed to the required depth. Remove all caps and blanks in the water lines to the equipment. Replace the manhole covers and plugs using new gaskets where necessary. Clean, inspect, and reconnect all piping, valves, and drain connections. Clean, paint, and refill the brine tanks. Backwash the softener thoroughly. Reassemble all testing equipment. Regenerate the softener in accordance with manufacturer's standards.

For wood gravity-type softeners, replace the zeolite mineral that has been lost, to bring the bed to the required depth. Reconnect all lines that have been disconnected. Inspect the softener for leakage; repair and tighten the bands where necessary. Clean, paint, and refill the brine tanks. Backwash the softener thoroughly. Regenerate the softener in accordance with manufacturer's standards. On automatic type softeners, reenergize the electrical circuits.

Clean all multiport and automatic type valves. Check all meters for accuracy. Clean, replace the diaphragm, and reassemble all hydraulic valves. Clean and adjust all backwash brine and rinse controls.

#### Tanks and Receivers

Check tanks for corrosion. Clean out all deposits, mud, scale, etc., using a wire brush where necessary. Remove all blanks and caps and reconnect all piping. Reinstall manhole and handhole covers using new gaskets where necessary. Check the float controls on condensate receivers for condition and for proper operation. Check the cold water makeup valve and float mechanism on condensate receivers. Clean and check the blowdown tank for condition and for proper piping, venting, and draining.

#### Piping in Boiler Plant

Clean all protective coatings from flanges, nipples, and other parts, and inspect all piping. Reconnect all piping that has been disconnected. Remove all blanks and caps in the lines. Check all valves for proper operation, repacking and reseating as necessary. Check all traps for proper operation, and clean or replace the strainers. Check, clean and repair as necessary, all regulating valves. Replace the diaphragm and readjust the valves where necessary.

### General Notes on Underground Heat Distribution System

The procedures given here include (1) inspection procedures along with associated M&R activities and (2) shutdown and startup procedures for cold layup (see General Distribution System at the end of this checklist).

The Preferred procedure is designed to provide maximum operational and thermal efficiency during deactivation. The Minimal procedure is designed to eliminate safety hazards and to keep the manhole internals dry, but is not designed to preserve operational and thermal efficiency.

Currently, there are no sump pumps in the manholes at Fort Dix. The Preferred procedure recommends the installation of sump pumps to prevent standing water in the manholes. Standing water leads to accelerated deterioration of the insulation and piping material, particularly if the system is kept hot or warm. It should be noted that Fort Dix is a Class A site, which means that the water table or standing water is expected to be above the bottom of the system at any time. The water table is currently lower than usual because of dry weather conditions.

#### Inspection

The inspection procedure should be carried out at every manhole and building entry pit. It is recommended that the system be inspected every 3 months to achieve the best efficiency and to minimize system deterioration, so for the Preferred procedure, the system should be inspected every 3 months. For the Minimal procedure, the system should be inspected every 6 months.

In general, an inspection should not be necessary upon reactivation if the system has been inspected regularly as recommended above. If the recommended periodic inspections have not been performed, then the system should be inspected upon reactivation.

#### Shutdown and Startup

For cold layup of the system, only a general shutdown and startup procedure is given. Fort Dix personnel should use their standard shutdown and startup procedure. Workers should wear appropriate protective clothing to avoid burns and injuries. NOTE THAT THE SYSTEM MUST BE STARTED UP SLOWLY, ON A SECTION-BY-SECTION BASIS.

#### List of Steam Distribution System Components

Manholes
Grates/Solid Plates on Manhole Tops
Positive Gravity Drains
Manhole Access Ladders
Valves
Flange Gaskets
Steam Traps
Heat Carrier Piping, Insulation, and Casing
Condensate Return Piping, Insulation, and Casing
Vents
Sump Pumps (If Installed)

#### **Checklist Reference Notes**

In the checklist that follows, several items carry numbered notations. These notations designate the following:

- (1) If water is found when conduit drain plugs are opened, this indicates a break in the heat-carrying pipe or conduit casing. A sample of the water should be taken and sent to a laboratory for analysis. If traces of water-treatment chemicals are found, this indicates a break in the heat carrier pipe. If traces are not found, a conduit pressure test should be performed to verify a leak in the conduit casing. The distance between manholes of defective sections should be noted for estimating purposes. The leak should then be repaired as appropriate.
- (2) If conduit vents are steaming, laboratory and conduit pressure tests should be conducted to determine whether the leak is in the heat carrier pipe or in the conduit casing, as described in the previous paragraph. The leak should be repaired as appropriate.
- (3) These procedures only apply if sump pumps have been installed in the manholes and building entry pits.

### UNDERGROUND HEAT DISTRIBUTION SYSTEM

NOTE:

D = Deactivation
P = Periodic
R = Reactivation

Pfr = Preferred Min = Minimal

yr = year d = days

ITEM	   Pfr	l I Min	STEAM	STEAM
Procedure	<u>                                   </u>	MAII	ON	OFF
GENERAL MANHOLE	<b></b>			
测量运输机械 电电影 环门 医神经球 医皮肤 医中央外外 化				######################################
Inspect for:	 	-	 	
Water/ excessive moisture	D/P	D/P	X	X
				=====
M&R activities as required:		   ======		
Pump out manhole	D/P	D/P	X	X
-	İ	l	İ	
GRATES AND SOLID PLATES				**====
ON MANHOLE TOPS	! }	i İ	 	
医囊球球球球球球球球球球球球球球球球球球球球球球	-	***		
Inspect for:	1			İ
Deterioration and corro-	D/P	D/P	======   X	=====   X
sion which could present	-, -	-/-	, <u></u>	
a safety hazard	!	!	!	
M&R activities as required:	   mamma	255775		
денения постательний видений видений видений видений видений видений видений видений видений видений видений в	 	~#===	  ======	
Replace deteriorated open	D/P	D/P	X	X
grate or solid plate covers				
化二甲基苯甲基甲基苯甲甲基甲甲甲甲甲甲甲甲甲甲甲甲甲甲甲甲甲甲甲甲甲甲甲甲甲甲甲				
POSITIVE GRAVITY DRAINS				
· · · · · · · · · · · · · · · · · · ·	=====		=====	
Inspect for:		110 MIL 1804 IN 1804		***
Free flow operation	D/P	D/P	X X	X
		====		
M&R activities as required:		 		
Free gravity drains	D/P	D/P	X	X
内架性保護性質性質性性性性 医直动性氏性皮肤炎 化二甲二二甲二甲二甲二甲二甲二甲二甲二甲二甲二甲二甲二甲二甲二甲二甲二甲二甲二		・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・	· ^	

· · · · · · · · · · · · · · · · · · ·				1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1
ITEM	Pfr	Min	STEAM	STEAM
Procedure			ON	OFF
MANHOLE ACCESS LADDERS			   	
Inspect for:		=====   		
Corrosion/deterioration  of ladder and rungs that  could pose a safety hazard	D/P	D/P 	X	X
M&R activities as required:				
Replace deteriorated ladder	D/P	D/P	X	<b>                                    </b>
	######################################	   ==== 		!   ======
Inspect for:				
Exercise to show free operation	D		X	   
Check packing for leaks	D P R	D   P   R	X   X	X
Excessive corrosion	D R		X   X	   X
Missing insulation	D R	<b></b>	X   X	X
M&R activities as required:				
Replace leaky packing	D P R	D   P   R	X   X   X	X
Replace excessively corroded valves	D R		   X 	x
Replace missing insulation	D R		   X 	x
医克里氏性骨骨骨骨骨骨骨 化二氯甲甲甲甲甲甲甲甲甲甲甲甲甲甲甲甲甲甲甲甲甲甲甲甲甲甲甲甲甲甲甲甲甲甲甲甲	=====			

	   Pfr	   Min	STEAM	STEAM
Procedure	MENSING MINING   	Expression   		OFF
FLANGE GASKETS		, 		
Inspect for:			======     ======	=====
Leaks	D,	D	X	X
	P	PR	X 	X
M&R activities as required:		.=====		
Replace leaky gaskets	D	D	X	х
	P R	P R	X	X
*************************			***	
STEAM TRAPS			-	
Inspect for:				
Proper operation	D	R	X	
	P	R	X	x
Excessive corrosion	D		X	
M&R activities as required:				
Replace inoperative or	D	R	X	
excessively corroded traps	P R	R	<b>X</b>	x

<b>美国建筑的企业的企业的企业的企业的企业的企业的企业。</b>		<b>:</b>	2 M M M M M M M M	
ITEM	   Df∽	   Min	STEAM	STEAM
Procedure	Pfr	 	ON	OFF
PIPING  ====================================				
Excessive corrosion	=====     D	=====   	=====   X 	X
Deteriorated insulation on   hot pipes	D		X   X	X
Deteriorated insulation   covering on hot pipes	D		X   X	X
Condition of wall pene-	D			X     X
Water stains at or near   wall penetrations	D		X     X	   X
Open conduit drain plugs and check for water flow	D/P	 	X	X     X
Excessive corrosion of supports	D	     	X   X	   X   
Excessive corrosion of conduit end plates	   D   		X   X	X
M&R activities as required:	-==E	_ = = #       # = = =	=====     =====	
Replace deteriorated insu- lation and covering	D     D		X   X	X     X
Caulk deteriorated or leaking wall penetrations	D		X	X
Replace corroded supports	D		X	X
Replace corroded end plates	   D   		X	X
Determine source of water in conduit (1)	D/P	D/P	X	X
Repair leaks in heat carrying pipes	D/P	D/P	X	X
Repair leaks in casing	D/P	D/P	X	X

   Pfr		STEAM	STEAM
 		ON	OFF
   	,   		 
D		X	X
D/P		X	
	=====		
D   R		X 	X
D/P	<b></b>   	X	   
D/P   (3) 		X	X
D/P   (3) 		x	x
D/P     (3)		X	X
	D/P D/P D/P D/P (3)	Pfr Min  D R  D/P  R  D/F  A A A A A A A A A A A A A A A A A A A	Pfr Min ON ON ON A CONTROL ON A

			STEAM	STEAM
Procedure	Pfr   	Min	ON	OFF
SUMP PUMPS (3) continued	=====			   
M&R activities as required:	ļ	į		
Install sump pumps in man-   holes and building entry   pits	D		X   	X 
Repair inoperative electric   service to pumps	D/P (3)		X 	X
Repair sump pump	D/P (3)		X   X	X
Replace irreparable pump	D/P (3)		X   X	X
Remove debris from manifole	D/P (3)		X	X
GENERAL DISTRIBUTION SYSTEM		* is so so so so ::	= = = = = = = = = = = = = = = = = = =	
Close steam valves	D		<b></b>     	X
Drain steam lines and condensate lines at low points.	D			X
If unsure about system slope, blow out lines with compressed air to avoid water/moisture remaining at system low points.	D			X         
Plug openings in steam and condensate system (drip lines and valves). Be sure system is sealed.	D	<b>   </b> 		x.
Open conduit drains.	D		· · · · · · · · · · · · · · · · · · ·	X
If desired, blow compressed air through conduit casing to remove moisture.	D			X
Close drains	D			X

ITEM	   Pfr	   Min	STEAM	STEAM
Procedure	   FTT	MTH	ON	off
GENERAL DISTRIBUTION SYSTEM	2555		=====	# <b># # #</b> # # #
Open all drain valves.	R			X
IMPORTANT! SYSTEM WILL BE ACTIVATED ONE SECTION AT A TIME!! THE FOLLOWING PROCEDURES ARE FOR EACH SECTION.	  -  - 	1           	 	X
low point in the section.				
Open bypass valves slowly. Workers at low points will see water, then steam/water mix, then pure steam at drain valves.	R	         		X
Slowly increase pressure.	R			x
Close drains when you have only steam (no water) at low points.	R			   X   
Increase pressure to 30 or 40 psi using bypass valves.	R			X
Verify operation of traps.	R			X
Open main valve very slowly	R			X
Bring section slowly up to pressure. This will take several hours.	R			X
Repeat procedure for each   section of the system.   Entire procedure will take   several days.	R	Tue too and sup time		x

#### APPENDIX L:

#### INSPECTION AND M&R CHECKLISTS FOR GAS DISTRIBUTION SYSTEM

#### General Notes

The gas mains at Fort Dix are owned by Public Service of New Jersey. The Army is responsible only for the laterals and service lines.

The lines are not cathodically protected.

Natural gas is used in only a small number of the buildings to be deactivated, most of which are dining halls.

Laterals will not be shut down; gas will be shut off only at buildings.

The inspection procedure should be performed annually. A good time to do the inspection is when the building is inspected for exterior painting.

There will not be a Do Nothing procedure for the gas lines. Leaving the valves open and letting gas remain in the lines would present a serious safety hazard.

# List of Gas Distribution System Subcomponents

Pipe and Fittings
Flange Gaskets
Escutcheons
Insulating Gaskets—Dielectric type
Valves for Isolation
Pipe Hangers and Supports
Pressure Regulators (Main and Service Lines)
Meters
Pressure-Relief Valves
Gas-Fired Kitchen Equipment

NOTE:	P	=	Deactivation Periodic Realignment	Min Yr	=	Preferred Minimal year days	
22222	2=====	===	**************		==:		=

ITEM	     Pfr	   Min	D<1yr	D>1yr	D<1yr	======  D>1yr 
Procedure			  R<45d	  R<45d	R>45d	R>45d
Inspect:						
Piping/ regulator outside each building for deter- ioration of the coating	1	   D/R  D/P/R	X   X	X     X	X   X	X X
Piping/regulator for corrosion of pipes at soil/atmosphere interface	•	     D/R  D/R/R		X	X   X	X
Insure that regulator vent is operating properly.	  D/P/R   	     D/R  D/P/R	X   X	X   X   X	X   X	X
M & R activities:	n = = = = = :   					
Replace existing cock on natural gas line to each deactivated building with a lock and key type cock.	D 	D     	X     	X     	X     	X     
Close and lock the cock. The piping and regulator should remain in place.	D	D I	X   X 	X   	X	X
Relieve pressure on the gas-fired units in each building (mostly dining facilities)	D	D   D	   X 	X   X 	X     .	X   X 
Close the valves to the gas-fired units in the building.	D	D	   X	   X 	X	X
affected areas of piping/		D/R D/P/R	X X	   X 	X   X	   X   X
Repaint or recoat affected areas of piping/  regulator as needed.	İ	D/R D/P/R		İ		     

			********	<b>= 4 = 3 = 3</b> = 1		
ITEM	   Pfr	i   Min	D<1yr	D>1yr	D<1yr	D>1yr
Procedure	   		R<45d	R<45d	R>45d	R>45d
Repair inoperative vents	D/P/R	D/R		X	X X	X 
	 	D/P/R	 	X		X
Remove soil from around pipes at corroded areas	D/P/R	D/R	X X	X	X X	X
and coat as needed	!	D/P/R	!	X	1	X
Turn on gas to each building	   R 	   R 	   X 	X   X	X   	X   X 
Check all lines for leaks	   R 	   R 	   X 	   X 	   X 	   X 
If leaks exist, repair them	   R 	   R 	   X 	X   X 	X   X	X   X
Light the pilot lights	   R	   R 	   X 		   X 	   X 
Verify that main burners will light and that proper pressure/thermo-static control exists	R	R	X   X 	X   	X   X 	X   X 

### APPENDIX M:

# INSPECTION AND M&R CHECKLISTS FOR PETROLEUM PRODUCTS STORAGE SYSTEM

### PETROLEUM PRODUCTS STORAGE SYSTEM

NOTE:

D = Deactivation P = Periodic

Pfr = Preferred

Min = Minimal

R = Reactivation

UST CLOSURE PROCEDURE Inspection/M&R activities:	Pfr 6 Min	TEMP	PERM  IN  PLACE 	PERM STORE	PERM REMOVE REPLAC	     
Notify regulatory   authorities	D	=====     X 	X	X	======     X 	
Contracting/scheduling for   tank closure	   D	x	X	     X	x	
Excavate to the top of the tank	D		X	X	   X	
Remove all product	] ] D	X	X	×	x	
Clean the tank	D R	X	X	x	X	   
Disconnect plumbing	<b></b>		X	x	x	
Cap all fill lines	D	X !				
Remove all fill lines	D		X	x	x	
Cap gauging lines	D	x		       		

1	1	1	1		ı	١
Remove gauging lines	D	<b></b>     	X	     X	X   X	
Cap pump lines	D	X   X				\ 
Cut off power		     X			     	
Remove all other fixtures	D	New Arts and Mark New Year		     X 	     X 	
Keep vent line open	P	     X 			     	
Plug all openings	D		X		     	
Check for release of   product	D	     X 	X	X	   X 	
Excavate around the tank	D	   · 	     	   X 	   X 	
Purge the tank with CO2	D			   X 	     X	
Remove the tank	D		     	     X 	     X	     
Dispose of the tank or scrap the metal	D	   			     X	
Implement periodic inspection program	P	х				
Fulfill reporting requirements	D	x	X	x	×	

	l	1	l	l	l
Fill the tank with inert materials	D		x		   
Backfill the tank excavation area	D		<b></b>   	X	X
Restore ground surface to original condition	     D	     	     X	     X	     X 
Put locks on openings	D	X	.		   
Check compatibility of fiberglass reinforced plastic (FRP) tank & new material to be stored	R	X			and that spen sing lage total
Reconnect fill, gauging, pump lines & other plumbing	     R	X			
Pressure test tank & piping for leaks & overall integrity	R	x	     		
Provide effective cathodic protection for steel tanks	R	x		   	
Check integrity of tank automatic shutoff & overfill alarms	     R 	x   x		   	     
Certify compliance with New Jersey Admin. Code 7:14B-5.1 & 5.2 & any other applicable requirements	   R 	     X 		       	
Install &/or maintain tank gauging & vapor, ground-water & interstitial monitoring system	R	х		.	144 Pag GP 444 444
Contract to install replacement tanks			х		X
THE SAME SAME SHARE SHARE SHARE SAME SAME SAME SAME SAME SAME SAME SAM				~	

	t	1	I	l	
Contract to install stored  tanks	R		<b></b>     	     X	
  Initiate an inventory  program	     R 	     X	     X 	     X	     X
If a leak exists:	i	į	İ	j	
====================================	=====     D 	======     X 	X   X	======     X	=====     X 
Take health and safety precautions	     D	X	     X 	     X	     X 
Test tank tightness	D	   X 			
Assess risk and potential liabilities	     D 	     X 	     X 	   X 	   X
Determine the extent of contamination	     D 	     X	     X 		x
Perform preliminary investigation & hydrogeologic study	<b></b>     D	     X	     X 	x	X
Recover product if possible & dispose of it	     D	     X	     X	X	X
Remove contaminated soil & dispose of it	   D	     X	X	X	X
Clean groundwater, monitor soil & groundwater	D	X	x	x	X
Document the events to regulatory authorities	D	х	х	x	X
Repair or replace tank as needed	D	X !	**************************************		
'	J	ı	ŀ	1	I

#### APPENDIX N:

# INSPECTION AND M&R CHECKLISTS FOR SANITARY SYSTEM—POTABLE WATER SYSTEM

#### General Notes on Potable Water Distribution Lines

Building shutoff valves should be located and repaired to eliminate leaks. Replacement, repacking, or breaking and capping lines should be considered. Building service line should be fitted with curbside valves and drained to safeguard against freezing; the other option is to break and cap the line. Also, repair and replace any damaged lines.

Water mains should be protected against partial clogging or leaking. Ream and reline mains. Locate leaks and repair as appropriate. Repair, repack, or replace faulty valves.

#### General Notes on Water Wells and Tanks

Wells on long-term standby should be inspected and tested periodically. Preventive maintenance should be conducted on wells, pumps, controls, and appurtenances.

Water treatment equipment at well head should be repaired and maintained in accordance with manufacturer manuals to prevent performance deterioration.

Elevated storage tanks should be safeguarded against deterioration of mechanical equipment. Inspect, clean, and lubricate mechanical parts periodically.

#### General Notes on Water Treatment Plant

Treatment processes such as softening and threshold treatment could be put on standby depending on the raw water mix. The treatment process standby equipment should be periodically serviced, including cleaning and lubrication.

Water treatment operation should be optimized to increase efficiency and accommodate demand fluctuations. An architectural/engineering (A/E) study for operator guidance may be necessary to satisfy the new operational objectives.

Pumps, valves, gauges, and controls should be kept in an acceptable operational condition because they may deteriorate as a result of low usage.

# Subcomponent List for Water Distribution Lines

Building Shutoff Valves Building Service Lines Water Mains

# Subcomponent List for Water Wells and Tanks

Water Wells Water Treatment Equipment at Well Head Elevated Storage Tanks

# Subcomponent List for Water Treatment Plant

Water Treatment Processes Water Treatment Operation Pumps and Controls

### WATER - DISTRIBUTION LINES

NOTE: D = Deactivation

P = Periodic

Min = Minimal

Pfr = Preferred

R = Reactivation

	=====	=====			=====	
DISTRIBUTION LINES	Pfr	Min	Ī	D>1yr	_	Ī
医乳球 医胆囊性 医腹膜 医腹腔 医皮肤 医皮肤 医皮肤 医皮肤 医皮肤	====	====	R<45d	R<45d	R>45d	R>45d  =====
Inspect for:	 	   =====			lmesee	  =====
Inspect and evaluate condition of water mains in the deactivated area.	D,R	D,R	X	X	х	X
Identify shutoff means (curbside/interior valves) for inactivated buildings.	D     	D	X   	X   X	X   	X     
Determine susceptibility of service lines to freeze.	D   D	D	X	   X 	X   X	X
Check semiannually (Spring & Fall) for frozen valves and leaks.	P   	P   	X	X   	X   	X
Perform complete inspection & record all high-severity defects for valves and building service lines.	R	R	X   X 	<b>x</b>   <b>x</b> 	   X   	X     
Establish record of valve location.	   D 		X   	X	X   X	X   X 
Determine condition of valves and valve boxes.	D   	   	X	X	X	   X 
		====	=====	=====	=====	====

	====:		=====	,	,	=====   D>1yr
DISTRIBUTION LINES	   Pfr 	Min	į -	į -	_	D>191      R>45d
, 	   ======	m====		======		
M&R activities as required:			i		,	, · · ,
		=====		=====		
Coordinate deactivation of   service lines with building   closures.	İ	D   	X   !	X   	X   	X         
Replace defective curbside valves.	D   	D	i x	X	X	X     X
Temporary repair all-high defects.	P	  p 	X   X	X	X   X	
Repair or replace damaged   shutoff valves.	P   P 	<b></b>   P 	   X 	X   X	   X 	   X   
	   R 	R   R	   X   	   X 		
Install curbside service   valves, as necessary, to   prevent freezing of service   lines.	   D     .		   X   	   X   	   X   	   X   
Perform annual complete  inspection of water  distribution system.	P		X   X 	   X   	X   	   X   
Permanently repair all  high-severity defects.	P   		X   	X	X   X	<b></b> -    X   
	=====		=====	=====	====	=====

# WATER - WELLS & TANKS

NOTE: D = Deactivation
P = Periodic
R = Reactivation Pfr = Preferred Min = Minimal yr = year d = days

		-				
   Wells & Tanks	1 545	 	D<1yr	D>1yr	D<1yr	D>1yr
WELLS & TANKS	Pfr	Min	10/15/	  R<45d	10/464	   D \ A E A
   早期日前出日銀行開発性理解を持ち日に日刊日報第二項表現法院に		 	EEEEE		おとまるは	
Inspect for:	ľ	i	İ	i i		İ
	=====		=====			
Identify wells to be placed  in standby status. 	D   	D   D	X   	X 	×	<b>X</b>   
Routine semiannual inspect-  ion (Spring & Fall) for  appurtenances & equipment.	P   P 	P   P 	X	X	   X 	   X 
Record high-severity de-  fects prior to reactivation	R   	l R I I	<b>X</b>   	X       	X   	<b>X</b>   
Routine inspection for wells & treatment equipment every 30 days, for inactivated storage tanks (if any) every 90 days.	   P   		   X	x	X	   X   
   电视器性化和解析性   1   1   2   2   2   2   2   2   2   2		  =====	  =====	=====	   =====	  ===n=
M&R activities as required:	į	j		ĺ		
	=====		=====	=====	=====	****
Clean, repair, & lubricate any component or mechanical equipment taken out of service.	D       	D     	X   	X       	X   	X     
Ensure that line pressure drops will not cause pressure-operated flush valves to open in active buildings.	   D	D	   X   	X	X	   X 
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j	1		D<1yr	D>1yr	D<1yr	D>1yr	1
WELLS & TANKS	Pfr	Min					
1	1				R>45d		
	=====	==:==	3522		=====		ĺ
(Cont'd) M&R activities:							
	=======================================	,	=====		=====	=====	ı
Provide minimal maintenance	P	L.	X	X	X	X	İ
for components in standby	]						
status.	!						j
!	!		ļ				İ
due son une son son man mon mon son son son son son son son son son s							ĺ
Complete maintenance and	R	R	X	X	X	X	ı
permanent repairs for	!						i
high-severity defects.	} 						ı
计算证据 医医院对抗结核性系统的过去式和过去分词形式				ज्यात्रकात्त		35 THE	j

## WATER - TREATMENT PLANT

NOTE:

D = Deactivation P = Periodic

R = Reactivation

Pfr = Preferred

Min = Minimal
yr = year
d = days

	===== 		=====   D<1 vr	Emman	=====  D<1yr	D > 1 0 ×     ======
W - TREATMENT PLANT	Pfr	Min	<u> </u>	•	    R>45d	_
- 三苯基苯基苯基苯基苯基苯基苯基苯基苯基苯基苯基		****			東京部の第	****
Inspect for:		ļ	İ		İ	
Determine changes to pro-  cesses as a result of  reduced demand.	D   	D   D	X	X	X	X   X 
Determine condition of   plant components in standby   condition (every 90 days).	P	P	X	X	X	X
Perform complete inspection  & record all high-severity  defects.	   R 	R	   X	х	x	x
Determine plant processes  to be reactivated and/or  supplemented to meet  increased demand.	   R   	R	   X   	x	x	х
Determine changes to   improve efficiency, co-   ordinate with regulatory   agencies.	P		   X   	x	х	x
Analyze treatment cap-   ability with increased   demand, determine treatment   process to be reinstituted.	R	<b></b>        	   X   	X	X	X
医骶骶侧侧线 经现代证据 化二苯甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基		=====	=====		EE55	

		umenm				'
W - TREATMENT PLANT	   Pfr	   Min	D<1yr  	D>1yr	D<1yr	D>1yr  
				R<45d		R>45d
M&R activities as required:	   mwwmm		=====	=====		=====   
	=====	=====	=====		====	====
Perform normal preventive   maintenance, cleaning, and   lubrication for components   taken out of service.	D     	D     	X     	X     	X   	X   
Temporarily repair all   high-severity defects in   standby components.	  P   	   P 	   X 	X   X 	X	X     X
Complete maintenance and  permanent repairs for all  high-severity defects.	R 	R	X   X	X	X	X
Perform normal preventive  maintenance for all plant  components, including  standby equipment.	<b></b>   P   		X	X	Х	X
	====	**===		mmmen	**=::=	=====

#### APPENDIX O:

#### INSPECTION AND M&R CHECKLISTS FOR SANITARY SYSTEM—WASTEWATER SYSTEM

## General Notes on Wastewater Collection System

Sewer lines and manholes should be maintained and cleaned of any excessive sediment, grit, or sand. The structural integrity and functional performance should be inspected and recorded. Safeguard sewer lines against erosion and excessive infiltration/inflow, while manholes should be protected from vandalism during layaway period.

Lift-station pumps and controls should be maintained and/or replaced to provide acceptable performance. Influent lines should be flushed periodically to eliminate sediment, grit, or sand. Operational flexibility should be increased through the introduction of bypass lines on an as-needed basis.

### General Notes on Wastewater Treatment Plant

Treatment processes such as trickling filters, clarifiers, and sludge digesters could be put on standby, depending on influent flows and concentrations. The treatment process standby equipment should be cleaned, flushed, drained, and periodically serviced including cleaning and lubrication.

Wastewater treatment operation should be optimized to improve effectiveness under low flow conditions and occasional fluctuations. Operational change should be considered to increase recirculation, improve flow equalization, and allow for longer settling periods.

Tanks, basins and auxiliary equipment should be serviced in accordance with Army Technical Manual (TM) 5-665 once removed from service.

#### Subcomponent List for Wastewater Collection System

Sewer Lines and Manholes
Lift Stations

Subcomponent List for Wastewater Treatment Plant

Treatment Processes
Wastewater Treatment Operation
Tanks, Basins, and Auxiliary Equipment

## WASTEWATER - COLLECTION SYSTEM

NOTE: D = Deactivation

P = Periodic R = Reactivation

Pfr = Preferred

Min = Minimal

			22222		=====	12 /2 52 111 121
	İ		D<1yr	D>1yr	D<1yr	D>1yr
WW - COLLECTION SYSTEM	Pfr	Min	   === A # =1	   % ~ 4 E ~ 1		   5 4 5 4 1
			人人45日	R<45d	K2450     #2455	K>45Q     B====
Inspect for:						
			====	****	=====	*****
Inspect lift stations and	R		Х	X	X	X
evaluate performance under     Inormal flow conditions.	1					
Inormal flow conditions.	1					
			25246		====	=====
M&R activities as required:	ł					
	====   D		X	X	<b>===</b> ==     X	====    X
Clean and repair sewer	ן ט	ָ ו		<b>A</b>	, A   	<b>^</b>
lin accordance with	į					
TM 5-665.	İ	j	Ì		Ì	l
Perform temporary repair		P				   X
for all high-severity	<u> </u>	-	, . <del>.</del>			
defects.	İ	ĺ		İ	ĺ	1
1		ļ	!	!		!
Complete maintenance and	R	   R	X		X	   X
repair for all high-			1	^	1	
severity defects.	İ	j	İ	İ	, 	İ
	!	!	!	]	!	!
Perform routine maintenance	   R	   R	   X	————   X	   X	   X
on lift stations includ-			^ 	^	<b>^</b>	1 ^ 1 1
ling pumps and controls.	i	1			ĺ	
I i	1	l	l		ĺ	1
Consider tool real discussion						
Consider tack welding man-  hole covers to frames in	l D	 	X	X	l X	X
unsecured deactivated areas	Ì		,  -	! 	! 	! [
to minimize vandalism.	İ	į į	j		İ	j
		!				[
· · · · · · · · · · · · · · · · · · ·	31000000	====	100 100 100 100		***	=====

## WASTEWATER - TREATMENT PLANT

NOTE: D = Deactivation

P = Feriodic R = Reactivation

Pfr = Preferred

Min = Minimal

   WW - TREATMENT PLANT 	   Pfr 	   Min 		-	D<1yr     <b>R&gt;45</b> d	D>1yr    R>45d
Inspect for:						
Determine operational	D   	D	. <b>X</b>	x	X	X
Determine condition of   plant components in standby   condition semiannually   (Spring and Fall).	P	P	   · X	х	   X	X
Perform complete inspec- tion, record all high- severity defects.	R	R	х	x	X	X
Determine treatment process changes to meet increased effluent flows.	R	R	х	X	X	X
All facilities or compon- ents removed from service should be inspected and serviced in accordance with TM 5-665.	D		X	x	X	x
Determine operational status of all plant components.	P		X	X	X	X

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 	i		D<1yr	D>1yr	D<1yr	D>1yr
WW TREATMENT PLANT	Pfr	Min	•	· •	_	
	İ	į į	R<45d	R<45d	R>45d	R>45d
	FF 905 NEW EXT NEW	#70 fine rap art 1122	And have specially	Lis Wa die Più Lit		test and that that that
M&R activities as needed :	1	1				
		***				Best att Feet with about
Components taken out of service will be drained and cleaned, pumps and lines will be drained and flushed with clean water, mechanical equipment will be cleaned, oiled or greased and protected, sludge digestors will be drained (10-15% per week) then thoroughly ventilated and cleaned	Ì	D   	X                 	X 	X   X	X   
Perform temporary repair  for all high-severity  defects in standby  components.	P   P   	P	X   X 	X   X 	X   X 	X   X
Complete maintenance and   permanent repair for all   high-severity defects.	R   R	R   R	X   X 			X   X
Perform normal preventative maintenance for all plant components in standby status every 90 days.	P   		X	X   X 	X   	X   X 
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#### APPENDIX P:

# INSPECTION AND M&R CHECKLISTS FOR SANITARY SYSTEM--FIRE PROTECTION SYSTEM

### General Notes on Fire Protection System

Flow and pressure tests should be conducted periodically on water hydrants. Repair or replace broken hydrants. For unsatisfactory test results, flush or clean lines, make sure valves are open, and check for unusual discharge in vicinity.

Fire alarm systems should be checked periodically for proper operation. Repair and replace inoperable components.

Subcomponent List for Fire Protection System

Water Hydrants Fire Alarm System

# WATER - FIRE PROTECTION

NOTE: D = Deactivation P = Periodic

Pfr = Preferred Min = Minimal

R = Reactivation

		=====	=====	======	=====	
	i					D>1yri
W - FIRE PROTECTION	Pfr	Min			_	
1						R>45d
	====			*====	=====	maran
Inspect for:			 			  =====
Inspect and evaluate	D		X	X	X	,   X
condition of all fire pro-  tection facilities includ-  ing alarm systems, hydrants  and automatic sprinklers  within the deactivated  areas.	   			       	- · · · · · · · · · · · · · · · · · · ·	
Perform flow and pressure   tests for hydrants in   deactivated areas.	D   	D   	X     	X     	X   	X   
Perform semiannual complete   inspection for all fire   protection facilities in   deactivated areas.	P   P 	P  - 	X   X	X	X   	X
Perform complete inspection	   R   	R   R 	X   X 	X	X   X 	X
Determine lines adequacy  for fire demands through  the use of field calibrated  hydraulic models.	 		X	X	X	X
	=====	=====		=====		

	-	क्षा का का का	***	=====		#E===	
W - FIRE PROTECTION	   Pfr 	   Min	D<1yr     R<45d	D>1yr     R<45d	- i	- 	
	   =====			2====			i
M&R activities as needed :	· 				   		
						=====	ŀ
Replace, repair, or main-  tain alarm systems,  hydrants, and automatic  sprinkler within the  deactivated area.	D         	D	<b>X</b>	X	X	X	
Conduct hydrants-flushing   program on a regular   basis.	P   	p	x	х	х	х	
Reactivate any automatic   sprinklers, as required.			X	X	X	X	
		स्राप्त स्राप्त	****		====		ĺ

#### APPENDIX O:

#### INSPECTION AND M&R CHECKLISTS FOR ELECTRICAL DISTRIBUTION SYSTEM

### **General Notes**

During the deactivation period, the system will remain energized to ensure reliable power to all safety and security systems, including EMCS, sump pumps, fire and security alarming systems, security lighting, and forced-ventilation systems.

There is no difference in activities required for the reactivation scenarios of more than or less than 45 days. Additionally, there is no difference in deactivation for a short or long deactivation period.

Preventive maintenance (PM) will not be required for the deactivation period less than 1 year since the normal schedule of PM on most system components is annual. Anticipated PM includes repair of storm damage as well as normal deterioration of wood structures and other subcomponents to ensure safe and reliable operation of the distribution system. Maintaining reliable operation is essential since portions of the installation will remain active, including the adjoining Air Force base,

The Preferred scenario assumes that maintenance is performed before major component or system failure occurs (i.e., poles are inspected and repaired or replaced prior to collapse, and transformers and other components that require PM are serviced and tested on schedules defined by industry, Institute of Electrical and Electronics Engineers [IEEE], or other standards). The Minimal scenario assumes that equipment is repaired or replaced after failure.

Properly trained personnel are essential to ensure the safe and smooth operation of the electrical distribution system. They must be properly equipped and staffed to perform safe and adequate inspection and M&R of this system to ensure reliable power is delivered to fire, life-safety, flood control, and security systems in the deactivated areas of the installation.

Semiannual inspections and maintenance may not be adequate for certain equipment. Manufacturer's literature should be used to help determine the appropriate inspection and scheduled maintenance frequency. The National Fire Protection Association document NFPA 70B, Recommended Practice for Electrical Equipment Maintenance, and the Westinghouse text Electrical Maintenance Hints should be used for further guidance on frequency and type of maintenance activities for various electrical system components.

An appropriate recordkeeping system and routine tagging of equipment requiring repair should be initiated at the time of facility deactivation. This will help ensure that critical components and systems are identified and repaired in a timely fashion. All switchgear, transformation equipment, conductor connections, and circuit breakers or fuses must be periodically inspected for poor connections, corrosion, or other moisture damage. These conditions could lead to overheating of components, even in a lightly loaded circuit. Insulation should be inspected for degradation, and all grounding and lightning arrestor equipment should be tested for proper operation. NFPA 70B contains specific information on inspection procedures and frequency and recommended routine maintenance of distribution equipment that should be used to help determine the specific labor skills, manhours, and equipment required to adequately maintain the distribution system.

## Subcomponents of Electrical Distribution System

Wood Poles
Wood Structures
Substation Transformers
Pole Mounted Transformers
Concrete-Pad-Mounted Transformers
Vault-Enclosed Transformers
"H" -Frame-Mounted Transformers
Constant Current Street Lighting Transformers
Utility Metering
Conductors

- · Copper
- Aluminum
- · Anodized aluminum
- · Steel-reinforced aluminum cable

Overhead Conductors
Underground Conductors
Manholes for Underground Cable
rounding Equipment
Circuit Protection Equipment
Pole-mounted switches

- · Normally opened
- Normally closed
- · Air break, manually operated

Insulators
Bushings
Lightning Arrestors

# DEACTIVATED BUILDINGS AND GROUNDS

# ELECTRICAL DISTRIBUTION

NOTE:

D = Deactivation
P = Periodic
R = Reactivation

Pfr = Preferred
Min = Minimal
yr = Year
d = Days

				- Days		
DISTRIBUTION SYSTEM EQUIPMENT	Pfr	Min	D<1yr	D>1yr	D<1yr	D>1yr
	- 4, 4, - 4, 4, 4, 4, 4, 4, 4, 4, 4, 4, 4, 4, 4,		R<45d	R<45d	R>45d	R>45d
INSPECT FOR:		A 10° last tax que tal sil-				
Rot, degradation, or failure of wood poles, structures, insulators, bushing which could cause power failure or safety hazard	D/P/R	R	х	, <b>x</b>	x	x
Insulation degrade- tion or failure of overhead and buried conductors	D/P/R	R P	х	X X	х	X X
Entire system for downed lines or poles and other failures after electrical storms, ice storms, or heavy rains	P		×	х	x	x
Aboveground pole and conductor fail-ures.	D/P/R	P/R	X	x	x	x
Animal or human damage of conduct-ors, transformers, bushings, insulators, switchgear	D/P/R		х	x	х	x
Proper connection and operation of grounding and lightning suppres- sion equipment	D/P/R	D/P/R	x	x	x	x

# DEACTIVATED BUILDINGS AND GROUNDS

## ELECTRICAL DISTRIBUTION

NOTE: D - Deactivation

P = Periodic

R - Reactivation

Pfr - Preferred

Min - Minimal yr - Year d - Days

			w			
DISTRIBUTION SYSTEM EQUIPMENT (CONTINUED)	Pfr	Min	D<1yr R<45d	D>1yr R<45d	D<1yr R>45d	D>1yr R>45d
INSPECT FOR:						
Proper operation of automatic and manual disconnect and switching hardware.	D/R	D/R	X	×	x	х
Proper operation of all transformation equipment	D/P/R	D/P/R	x	x	x	х
Security and integrity of all equipment enclosures and vaults.	D/R P	D/R	x	x x	x	x x
M & R ACTIVITIES						
Repair damaged con- ductors, transform- ers, grounding equipment, wood poles and struc- tures and other hardware when in- spection indicates deficiency	D/P/R	R	х	х	х	x
Replace fulled dis- tribution system components	D/P/R	D/P/R	х	х	x	х
Replace transformer oil and perform required maintenance annually	D/R P	D/R	х	x x	х	X X

# DEACTIVATED BUILDINGS AND GROUNDS

### ELECTRICAL DISTRIBUTION

NOTE:

D = Deactivation P = Periodic R = Reactivation

Pfr = Preferred

Min = Minimal yr = Year

_		<b>n</b> -	
а	_	Da	VS.

			<b>.</b>	- Days		
DISTRIBUTION SYSTEM EQUIPMENT (CONTINUED)	Pfr	Min	D<1yr R<45d	D>1yr R< <b>4</b> 5d	D<1yr R>45d	D>1yr R>45d
M & R ACTIVITIES						
Remove or repair damage to system components due to animal or human in- trusion (nests or tampering)	D/P/R	D/R	x	x	х	x
Perform scheduled replacement of con- ductors, insula- tors, bushings and other components subject to weather or time induced degradation	D/P/R	R	<b>X</b>	x	х	x
Perform load ana- lysis to determine adequacy and efficiency of existing design	R		x	x	x	х
Upgrade transformers, conductors and safety hardware to meet new system loads and current code requirements.	R	R	x	x	х	x